



The development of turning: **Vic Wood** 



**Walter Hall:** turning pens from scratch



Turning fruit with **Colwin Way** 

### See the full range at the following stockists:

#### **ENGLAND**

Westcountry Machinery 4 wood,

Beacon Kilns, High Street Village,

St Austell, Cornwall, PL26 7SR 01726 828 388

Jaymac (Derby) Ltd, 852 London Road

Derby, Derbyshire, DE24 8WA 01332 755 799

Peter Child Woodturning Supplies, The Old Hyde, Little Yeldham, Essex, CO9 4QT 01787 237 291

Toolite Co, Unit 3/2 The Mews Brook Street,

Mitcheldean, Gloucestershire, GL17 0SL 01594 544521

John Davis Woodturning,

The Old Stables, Chilbolton Down Farm,

Stockbridge, Hampshire, SO20 6BU 01264 811 070

Stiles & Bates, Upper Farm, Church Hill

01304 366 360 Sutton, Dover, Kent, CT15 5DF

David Biven Machinery & Tooling,

53 Grenville Avenue, Lytham St Annes, Lancashire, FY8 2RR

01253 724 862

J Carr & Son Ltd, 9-10 Horncastle Road, Boston Lincolnshire, PE21 9BN

01205 351 555

D&M Tools, 73-81 Heath Road,

Twickenham, Middlesex, TW1 4AW 0208 892 3813

Norfolk Saw Services, Dog Lane, Horsford

01603 898 695 Norwich, Norfolk, NR10 3DH

**Snainton Woodworking Supplies,** 

Barker Lane, Snainton, Scarborough,

North Yorkshire, YO13 9BG 01723 859 545

Toolpost Ltd, Unit 7 Hawksworth, Southmead Industrial Park, Didcot,

Oxfordshire, OX11 7HR 01235 511 101

Yandle & Sons Ltd, Hurst Works, Martock,

Somerset, TA12 6JU 01935 822 207

Kraftkabin, 248-254 London Road,

Stoke on Trent, Staffordshire, ST4 5RH 01782 416 102

DJ Evans (Bury) Ltd, St Botolphs Lane,

Bury St Edmunds, Suffolk, IP33 2AU 01284 754 132

Elmers Hardware Ipswich, 59-61 Edmonton Road, Kesgrave, Ipswich, Suffolk, IP5 1EQ 01473 623 381

RS Paskin & Co Ltd, Oldington Trading Estate,

Stourport Road, Kidderminster,

Worcestershire, DY11 7QP 01562 829 722

### **SCOTLAND**

### MacGregor Industrial Supplies,

15-17 Henderson Road, Longman Industrial Estate, Inverness, Inverness-shire, IV1 1SN 01463 717 999

Further branches available throughout the highlands. Brodies Timber, The Old Sawmill,

01350 727 723 Inver, Dunkeld, Perthshire, PH8 0JR

#### NORTHERN IRELAND

The Wood Shed, 11 Lowtown Road,

0289 443 3833 Templepatrick, Co Antrim, BT39 0HD

B McNamee & Co Ltd, Park Road,

028 7188 2853 Strabane, Co Tyrone, BT82 8EL

#### IRELAND

EPT (IRL) Ltd, Pollerton Industrial Estate, Hacketstown Road, Carlow, Co Carlow 00353 599143300

WH Raitt & Son Ltd, Main Street,

00353 74 913 1028 Stranorlar, Co Donegal

JJ McQuillan Son & Co, Ltd Unit 10,

Westend Retail Park, Blanchardstown,

Dublin 15, Co Dublin 00353 18025 100

Joe McKenna Ltd, 54-56 Parnell Street Limerick, Co Limerick

00353 61 413 888

JJ Ronayne Ltd, Dublin Road, Thurles

00353 5042 1033



### **SC3** Geared Scroll Chuck Package

### Includes:

**Geared Scroll Chuck** 

(Thread options below)

**62313** 50 mm Jaw Set

62572 2 Inch (50 mm) Faceplate Ring

**62833** Standard Woodworm Screw

61016 Pinion Key

### **Thread Options:**

**61064** 3/4" x 16 TPI

61062 1" x 8 TPI

6106 5 M33 x 3.5







### **SC4** Professional **Geared Scroll Chuck Package**

SC4 **Professional Geared Scroll Chuck** 

62313 50 mm Standard Jaw Set

62572 2 Inch (50 mm) Faceplate Ring

Standard Woodworm Screw 62833

62826 8 mm Ball Hex Key

62825 Universal Spanner **Chuck Insert** 

(See website for full range of inserts)











**62321** 35 mm Standard Jaws **£29.99** 

62323 Long Nose Jaws

62574 4 Inch (100 mm)

Faceplate Ring 19.99



62313 50 mm Standard





**62327** Pin Jaws with 9 mm Bore £39.99



**62378** RP Plastic Soft Jaws **£16.99** 



62329 100 mm Dovetail



62336 Mini Spigot Jaws with 13 mm Bore £39.99



**62356** Remounting Jaws Mini - Up to 200 mm Bowl f39.99



**62317** 130 mm Dovetail Jaws **£46.99** 



62322 75 mm Heavy Bowl and Gripper Jaws £49.99



62337 Pen Jaws £24.99



**62572** 2 Inch (50 mm) Faceplate Ring **£18.99** 



Prices valid until 28.02.2016. E&OE





### Christmas Crackers 2015 **Now Available**

Featuring a great range of fantastic exclusive offers! View online or call us to request your free copy.

Offers end 31st December 2015



# Introducing the Brand New Range of Woodturning Chucks and Jaws

We are extremely proud to introduce the brand new range of Record Power woodturning chucks and jaws. This exclusive new range has been developed using Record Power's extensive experience and knowledge of woodturning in conjunction with a group of highly experienced professional and hobby woodturners, to bring you the ultimate in quality, versatility and value. Incorporating the best elements of our previous ranges, we have also listened closely to our valued customers over the years and have taken note of their feedback, suggestions and requests to guide our design approach.



Precision Engineered Gears
Super Geared True-Lock™ technology
ensures high levels of accuracy to
provide smooth and solid operation.



Jaw Fixing System
The SC3 and SC4 feature a jaw
fixing which will not only fit
the Record Power series of Jaws but
is also fully compatible with Nova and
Robert Sorby brand jaws.



Heavy Duty Jaw Slides
The improved and enlarged jaw slides
give unsurpassed holding power and
load bearing ability. They are made
from high tensile steel, reinforced with
nickel and copper and heat-treated to
ensure superior strength.



Full Indexing
The SC4 features a strong backing plate to protect the gear mechanism from dust and 72-point indexing around the full circumference.



RECORD POWER

ESTABLISHED 1909®



STARTRITE

CORONET

BURGESS

Incomporation some of the most far

Incorporating some of the most famous brands in woodworking, Record Power have been manufacturing fine tools & machinery for over 100 years. Built to last we provide support for thousands of machines well over 50 years old, which are still in daily use. Testimory to the sound engineering principles and service support that comes with a Record Power product.

# SEVEN YEARS ?? Really ??





New Rep: Youtube's #1 Woodturner, Carl Jacobson, with wife Robin. Tel:503-939-4565, jacobson68@yahoo.com www.youtube.com, search for "Carl Jacobson"





Robust is the only lathe manufacturer to offer a full seven year "Head to Tail" warranty.

That's right, every nut, bolt, switch, bearing, you name it, is warranted for seven years.

When we say everything, we mean everything.

How can we do that when some lathe manufacturers won't even warrant the spindle bearings?

Easy. We make them to last.



Because the making matters.

Already have a Robust lathe less than seven years old? You're covered too!



Turning yet another Christmas present



hristmas is soon upon us and there are always last minute things to make. That said, you need to hurry if you haven't made everything by now, because the clock

is ticking and time will fly by in what is the seasonal madness of Christmas. I am looking forward to having a few days off over Christmas. I will be spending time with the family and hopefully, weather permitting, will get some time to go fishing. I know many will think it's mad to be out braving the weather in the hope of catching something for dinner, but I rate it the same as going in the workshop in the hope that we will create the perfect item. It will happen one day, but I have yet to create that item for myself. I always see fault in what I am doing and have made. OK, sometimes the faults are small but I see them and they annoy me

no end. I am not a perfectionist, honest!

Anyway, my fishing is no different. Just one day I hope to cast perfectly, with delicate presentation of the bait to a rising fish that just immediately swallows the bait. Well, like trying to create the perfect turning, I get some elements right and not others. I love the challenge and the learning curves involved. I never stop learning and trying to improve.

I am undertaking a full workshop clear out and move around at the moment, so for the New Year my workshop will be spotless. OK, I lie. It will be clean and tidy for a while but undoubtedly better organised, rather than the tip it is at present. Actually, I need to have it done just before Christmas, due to it doubling up as storage space for cakes and other food due to it being a nice cool – my wife says cold – temperature. I must admit that last Christmas I found what I thought to be a large lump of wax/grease on my

clean, bandsaw table... only to find that it was double cream! No, before you think it, I didn't raid the cakes and slyly munch through them while working. I am going to put the food on a nice temporary table in the workshop so my equipment remains clear of any food contamination.

Workshop time will be minimal other than undertaking any repairs or DIY that simply 'has to be done over the break'. Yes, there is always something, even if it is just hanging up a new picture. Whatever you do during the coming holiday, have fun, keep well and thank you for all your help and support during the year.

Best wishes,

markb@thegmcgroup.com



Woodworkers Institute website (www.woodworkersinstitute.com) is thriving. It would be great if you took a look and participated in the various discussions and competitions in our community, or see us on Facebook & Twitter.

# Contents

Issue 287 Winter 2015





COVER IMAGE BY RICHARD FINDLEY. See page 27.



### **Turning wooden fruit**Colwin Way gets right to the

colwin Way gets right to the core of using jam chucks when turning fruit...

### 21 Making pens from scratch – part 1

In the first part of a new project, Walter Hall turns the core section of a fountain pen

### 33 Spalted beech bowl

Bob Chapman looks at beech and turns a bowl from a spalted piece

### 45 Bolt from the blue

Andy Coates on how a restless mind inspired a nut and bolt box

### 81 Preserving family heirlooms

Andrew Potocnik completes another turner's work to preserve a pedestal table



### 39 The development of turning

Australian turner Vic Wood reflects on 25 years of woodturning

### 51 Irish seminar onto a winner

Editor Mark Baker popped over to Dublin for this year's IWG Seminar and found himself judging an aweinspiring chapter challenge – as well as enjoying the craic...

### 77 In the workshop with... Steve Fearnley

We find out about the Yorkshire-based woodturner

### 104 Featured Artist

Arizona-based Bill Ooms shares his 'Black and Silver Egg', made for the AAW's recent Professional Outreach Program exhibition



### 27 Faceplate work

Richard Findley concludes his problem-solving series with a look at the difficulties surrounding faceplate work

### What you need to know about hollowing rigs

Kurt Hertzog shares his thoughts on selecting hollowing rigs

### 67 A cone-based chess set

In the third article in his series, Mike Darlow turns a chess set based on the cone

### 87 Box with lid and finial top

Philip Greenwood turns a decorative lidded box with a finial top

### Kit & Tools

### 94 Kit & tools

A mixture of press releases showing the latest tools and products on the market





### **NEWS, LATEST PRODUCTS, MAGAZINE UPLOADS & EVENTS**

can all be found on www.woodworkersinstitute.com. These all appear on the magazine homepage and you can see a bigger selection by scrolling down the page and clicking on the individual stories. We also have an extensive online archive for you to browse

### **Subscribers!**

Turn to page 98 for subscription special offers and you could save 30%!

**Conversion chart** 





### Community

### 3 Leader

Mark Baker introduces you to this month's issue and suggests why the festive holiday might be the ideal time for a workshop clear out

### 7 Round & about

We bring you the latest news from the world of woodturning as well as letters from the Woodworkers Institute forum and important dates for your diary from the woodturning community

### 12 Giveaway

To celebrate 25 years of *Woodturning* magazine, during the year-long celebration, the leading names in the industry are giving away items from their product ranges. This month, Turners Retreat is delighted to offer this fantastic range of products

### 75 Next issue

Find out what's in store for next month



### **HEALTH AND SAFETY**

Woodturning is an inherently dangerous pursuit. Readers should not attempt the procedures described herein without seeking training and information on the safe use of tools and machines. All readers should observe current safety legislation.

1015mm (40in) 1120mm (44in)

1220mm (48in)

1320mm (52in)

1420mm (56in) 1525mm (60in)

150mm (6in)

155mm (6<sup>1</sup>/<sub>8</sub>in)

160mm (61/4in)

165mm (6<sup>1</sup>/<sub>2</sub>in)

170mm (6<sup>3</sup>/<sub>4</sub>in) 178mm (6<sup>7</sup>/<sub>8</sub>in)

180mm (7in)

185mm (7<sup>1</sup>/<sub>4</sub>in) 190mm (7<sup>1</sup>/<sub>2</sub>in)

195mm (7³/sin) 200mm (8in) 305mm (12in) 405mm (16in) 510mm (20in) 610mm (24in) 710mm (28in) 815mm (32in) 915mm (36in)



# Round & about

We bring you the latest news from the world of woodturning as well as letters from the Woodworkers Institute forum and important dates for your diary from the woodturning community

AAW opens up new opportunities

he American Association of Woodturners (AAW) is dedicated to advancing the art and craft of woodturning worldwide by offering opportunities for education, information, inspiration and community to those interested in turning wood. It is always looking to embrace new talent and is currently offering several upcoming opportunities for woodturners of wide-ranging skill levels.

### Call for entries

### AAW's 2016 POP Exhibition: Patterns

For its 2016 exhibition at the AAW's annual international symposium in Atlanta, Georgia, the Professional Outreach Program committee is opening its traditionally invitation-only exhibition to a limited number of juried pieces. The exhibition features exceptional work by an invited roster of both established and emerging artists. The theme for the 2016 exhibition is Patterns. All pieces will be auctioned live at the symposium with simultaneous online participation. Funds raised will support the Outreach Program's initiatives to foster and promote high standards of professionalism and visibility in the woodturning arena.

Deadline: 31 December, 2015

### AAW's 2016 Juried Member Exhibit: Turning 30

The theme for AAW's 2016 juried and invitational exhibit is Turning 30, in celebration of AAW's 30th anniversary. For three decades, the AAW annual exhibitions have encouraged members to present their finest work whether that means new and innovative ideas and techniques or presenting perfected techniques and classic forms.

Deadline: 1 February, 2016

### **Grant funding**

### **AAW 2016 Educational Opportunity Grants**

AAW's Educational Opportunity Grant fund assists members in their woodturning



 $The AAW \ digital \ app \ is \ now \ available, so \ members \ can \ download \ issues \ of \ the \ \textit{American Journal} \ free \ of \ charge$ 

education goals and continues to be strong, thanks to the generosity of donors and buyers at AAW's annual international symposium auction. Funds are available for worthy proposals and all AAW members are eligible to apply for 2016 grants, with the exception of those who were recipients of grants in 2015. Additionally, the Educational Opportunity Grant committee will award 10 certificates for registration to AAW's 2016 annual international symposium June 9-12, 2016, in Atlanta, Georgia.

Deadline: 31 December, 2015

### AAW 2016 POP Fellowship grants

AAW's Professional Outreach Program is accepting applications for its 2016 fellowship grants. The purpose of these biennial grants is to encourage creative growth, research, or inspiration for new directions in turned wood art. Applicants may be interested in pushing their work creatively in a new direction, working in collaboration with another artist,

or exploring the use of new materials. The Outreach Program fellowship grants are funded by proceeds from the annual auction at AAW's annual international symposium. Fellowship grants are open to turners of all skill levels, although applicants must be AAW members in good standing.

Deadline: 1 May, 2016

### New digital app

The AAW digital app, a downloadable tool used to read the *American Woodturner* journals on devices, is now available for download from the App Store or Play Store for your device. The AAW digital app download is free. Using the app, AAW members will be able to download issues of the *American Woodturner* journal free of charge with a login. Non-members will be able to purchase individual issues or a subscription to the *American Woodturner* journal with the app.

### CWS promises talented line-up for workshop

enowned Devon-based artist Nick Agar, Pennsylvanian woodturner Michael Kehs and homegrown turner Guilio Marcolongo have been confirmed for 2016's Collaboration Western Australia workshop, which will be held at the end of September.

Under the leadership of Robert Jones and the Committee the Collaboration has flourished and the upcoming event and its invited international guests promises to expand the skills of those attending.

The 2014 Collaboration included Binh Pho and Jacques Vesery who both also held masterclasses before and after the Collaboration. It was four days of hands-on, mind boggling work that were tremendously rewarding and left many people realising how much they still had to learn. Other attendees included Guilio Marcolongo, Neil Turner,

Greg Lawrence and Annette Barlow alongside several other well-known Australian artisans.

Funding for the biennial gathering has come from the successful 2014 event, held at Bunbury Cathedral Grammar School. There was also the Coast to Coast exhibition, held at the Bunbury Regional Art Gallery to showcase the work of those attending and other well-known artists.

The 2014 workshop was lively from the off. Within minutes of arriving, everyone was busy and items were being passed around to be worked on by several people. Five days of hard graft followed, punctuated by great camaraderie and friendship and lots of busy fingers at work. By the end of the Collaboration, more than 120 works of art had been made, many of which held no resemblance to the original! During

the workshop Binh also gave an evening demonstration and there was a visit to the Bunbury Regional Art Gallery to see the Coast to Coast exhibition. Both Binh and Jacques enjoyed themselves so much they said they would love to be invited back to a future Collaboration in the future.

Essential funding opportunities came in the shape of an eagerly awaited lucky dip, overseen by Jack de Vos, where everyone hoped to win an item made by a guest artists. And on the last afternoon auctioneer Frank Evans held centre stage as more than 130 pieces of work and donated goods went under the hammer.

More information about 2016's event can be found on the Collaboration's website.

**Contact:** Collaboration Western Australia **Web:** www.collaborationwa.org.au









Collaboration Western Australia is a biennial event held in October for a few days of mayhem. It was founded in 2008 by several well-known Western Australian wood artists to enhance the expertise of local and eastern states artists using the unique West Australian timber. The first four-day collaboration was held in April, 2009 with 30 invited artists from all over Australia. They included woodturners, woodcarvers, jewellers and artists. This inaugural event had such positive feedback that it was decided to hold another workshop in July, 2010 and more successful events have followed in the years since. The 2016 workshop is scheduled to run from 22 September.



Irish Yew Bowl by Crataegus, at 159 x 50mm



Table leg pot in oak (*Quercus robur*) at 92mm d x 90mm h, by Neil Lawton



Cocktail Stick Dispensers by CHJ, from ash (Fraxinus excelsior) and yew (Taxus baccata)

# Mount Pleasant lays trail for sculptors

he Mount Pleasant Gardens, set in the heart of the rolling Cheshire Countryside near Delamere Forest, is looking for artists to contribute to a new sculpture trail in May 2016.

A flora and fauna bonanza, the trail will be an outdoor event, making it perfect for large-scale, robust projects to be viewed by Mount Pleasant's many visitors. The sculptures will be required during May, but can remain in the 10-acre garden until the end of the season.

There is also a separate area for smaller pieces and paintings, where it may be possible to display a number of pieces of work.

Artists who would like to participate in the May 2016 sculpture trail should visit Mount Pleasant's website – see below – for an application form and send it, together with website references, indications of sculpture sizes and retail prices along with the type of work they create to the address given. The closing date is 31 January, 2016. If you would like to visit the gardens to see whether your sculpures are suitable, please contact Mount Pleasant to make an appointment.

The Flora and Fauna Sculpture Trail will run from 1–31 May, 2106. Mount Pleasant's September Sculpture Exhibition will run as usual with sculpture of all types and sizes on display throughout the gardens. Exhibitors can also apply for this if they wish to take part.

**Contact:** Louise Worthington **Tel:** +(44) 0 1829 751592 **Web:** www.mountpleasantgardens.co.uk



Dave Darlington's conker sculpture from Mount Pleasant's 2015 trail

# WOODWORKING IN THE NEWS

### Finnish sector driving green initiative



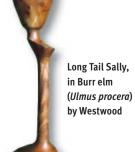
inland's forest industry
has made good progress
towards hitting a number of
voluntary environmental targets
set in 2012, according to a recent
report by the Finnish Forest
Industries Federation.

The interim investigation, 'Towards 2020' suggests the forest-based sector is already approaching, or has exceeded, five of its 10 targets. The data illustrates how strongly the country's industry is committed to environmental and responsibility issues, but also says more needs to be done if the sector is to achieve all of its commitment objectives.

The success stories include raising the share of certified wood in domestic wood consumption to 85%, already surpassing by five percentage points the 2020 objective, and meeting the target of a 30% reduction in landfill waste.

Measures contributing to this include new recycling destinations as well as an increase in the energy utilisation of organic waste. Good progress has also been made on renewable energy use. In 2014, renewable energy accounted for 84% of the forest-based sector's energy production, up from 78% in 2011.

The report noted, however, that more needed to be done if the industry was to meet its own target to conserve the forests' biodiversity. The objective is for a smaller number of the species, which were recognised as threatened in 2010, to remain on the endangered list in 2020. It was suggested that this aim could not be attained unless the use of nature management methods and voluntary forest conservation continued. **Contact:** Finnish Forest Industries Web: www.forestindustries.fi/





Ashtray by Masoero.guido, from sertao Brazilian rosewood (Dalbergia nigra)



newsroom/news

## Woodchips in your underwear

The perils of living with a woodturner are not always obvious, as one reader points out to our very own Editor Mark Baker

've done it again! Forgotten to separate his work clothes from the rest of the washing. All the dark colours have gone in to together and I'm stood here picking woodchips out of my undies... sigh... Will I never learn?!

A couple of years ago I could mix and match my washing at will. All darks together, all whites together, all colours together. Since being with a man that turns, all that has gone out of the window. There is a permanent trail of chips in varying sizes throughout the house. They tumble from him as he walks through, they spill from every pocket, fold and turn-up. They cling to wool, lace and carpets like limpets to a rock.

The big ones aren't too bad, as you can see them easily and pick them up before they have wheedled their way into weaves. The wood dust gets swept up, hoovered or washed away. It's the spiky little so-and-sos that cause the trouble; the grown-up splinters. They have the ability to cling immediately to any fabric and work their way in, hanging on – literally by a thread – as they are washed, spun and dried in the machines. There they nestle, hiding behind the weaves and in the lace, ready to work their way out at the most inconvenient times.

I mean, there you are serving your customer, you move and darn it when something that feels like a spearhead stabs you in the buttock. You wriggle a bit trying to dislodge it and only make it worse. You dare not sit down in case you ram it into your flesh. You try to discreetly tug at the material to lift it from your skin at least, but no, it's still there. So you carry on with the customer, your buttock involuntarily twitching with a mind of its own trying to dislodge the intruder. You eventually escape to the cloakroom to investigate only to find that what seemed like a dagger prodding you



Fluff and chips? It gives a whole new meaning to airing your dirty linen in public...

in the buttock is a mere 5 mm splinter of oak.

Then there's the poor old tumble dryer. My friends do battle with fluff in the filter, while I produce a carpet created with the ubiquitous fluff along with wood chips woven together and compacted. I'm sure there must be something useful I can make with it. Rugs for a dolls' house maybe? I'm trying not to think about what goes down the waste pipe from the washer. One day we will get an angry householder further down the waste-pipe chain complaining that they have something jamming their sewer pipe outlet which, when dislodged, will look like a chipboard log.

I have learnt that fitted carpets are a big no. Wood, stone or laminate floors are the only ones to have with a turner in the house. After that, it's a case of how many rugs you are prepared to maintain by vigorously hoovering in both directions to dislodge the chips from the pile, only to find when you look from another angle there are still some diehards clinging on for dear life. I suppose

the answer is shagpile in a mix of natural colours, so the little darlings can bury themselves deep out of view and have a perfect disguise. Until you walk barefoot on them of course. Better not go on too long or someone may retaliate with his version of the aftermath of my sewing – bits of threads everywhere, stray pins, having to act as a model while I pin up the hem – or my jewellery making...

For all that, I wouldn't change him for the world (don't tell him, though, or he will stop shaking his clothes before he comes into the house and emptying the pockets or doing the hoovering on a regular basis). The plus side is I live with a continuous stream of beautiful objects that evolve and change as he does in his work. I have lovely things to use and cherish and pieces he makes just for me. I have beads, drops and focals made for my jewellery without complaint. All in all, a small price to pay for a few woodchips in my underwear.

Mrs M-J, via email

### Chippendale School sets 2016 course dates



he Chippendale International School of Furniture has announced four short 'Experience Woodworking Courses' for 2016. The courses will run in January, April, June and September and are for small groups of up to 10 students. Run over a five-day period from Monday to Friday, The Chippendale Experience Courses are very intensive but also a lot of fun. Students will learn a range of woodworking skills and

techniques. The many subjects covered will include cutting, sawing and sanding – and the machines involved; Japanese wooden nails; wooden boxes; turning a small bowl; finishes such as Shellac; pyrography; and wood art. Where: Chippendale International School of Furniture, Gifford, East Lothian, EH41 4JA Contact: Chippendale International School of

Furniture **Tel**: +(44) 0 1620 810680 **Web**: www.chippendaleschool.com

# nova Woodturning lathes

# Introducing the new Comet II VS





### Order now from your NOVA retailer for Christmas

Find your nearest **NOVA** retailer at **brimarc.com/nova** or call **03332 406967** North American readers please visit **novatoolsusa.com** 

Use only genuine NOVA accessories on NOVA chucks and lathes. Using non NOVA products on NOVA products or vice versa may result in inaccuracy, be unsafe and will not be covered under product liability or warranty. Prices valid until 31st December 2015.

# 25th anniversary giveaway Turners Retreat pen turning accessories

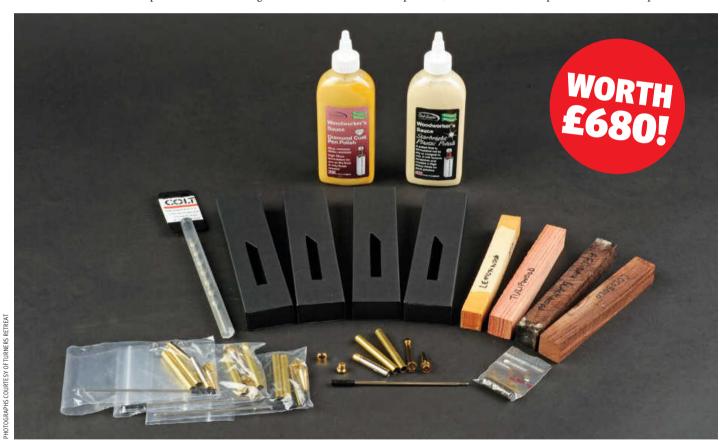
To celebrate 25 years of *Woodturning* magazine, a string of the industry's leading names are giving away top items from their product ranges. This month, **Turners Retreat** is offering readers 45 high-quality pen turning prizes

ogether with Turners Retreat, we have 45 great anniversary prizes to give away to *Woodturning* readers. The company, which offers one of the best selections of pen turning kits and accessories in the UK, caters for all levels of ability from the humble beginner to the experienced.

For *Woodturning*'s anniversary, Turners Retreat has 15 bottles of each of its pen turning finishes – Diamond Coat and Starbright Pen Polish – to give away. The finishes have been developed using the company's knowledge and customer input and provide one of the best pen polishes around. The Diamond Coat provides a hardwearing and water-resistant

glossy finish on all woods; the Starbright is ideal for a vast array of acrylics and resins available and creates a high-gloss finish.

There are also 15 sets of Turners Retreat's pen kits, boxes and pen blanks up for grabs. The Standard 7mm pen kit is an excellent starting point for any beginner as well as a great addition to the experienced pen maker's repertoire. A mixed selection of wood blanks offers you a wide variety of effects and when completed, the hard card case provides an excellent way to display your finished pen. A pen kit comprises one 7mm colt drill bit, one set of 7mm pen bushes, four 7mm pen kits, four mixed wooden pen blanks and four pen boxes.



### **FURTHER INFORMATION**

For more information and to see other products in the Turners Retreat range, visit www.turners-retreat.co.uk

### How to enter

Send your details on a postcard with the title '25th anniversary giveaway 287' to **Woodturning Reader Giveaway**, 86 High Street, Lewes, East Sussex BN7 1XN or send

an email to karensc@thegmcgroup.com. The closing date for the competition is 17 February, 2016.

### **Competition rules**

The competition is open to everyone. Only completed entries received by the closing date will be eligible. No entries received after that date will be considered. No cash alternatives will be offered. The judges' decision is final and

no correspondence can be entered into. The winner will be expected to be in possession of a copy of this issue of *Woodturning* magazine. Only one entry per household. Employees of GMC Publications, their associated companies and families are not eligible to enter. By entering the competition, winners agree to their names being used in future marketing by GMC Publications, unless you mark your entry otherwise.









Ideal for use with Tormek woodturning jigs when you need to create the first shape or change the shape of a tool (removing a lot of steel), which is done faster on a bench grinder. Exact profiles are repeatable time after time.

### **SVD-185 Turning Tool Jig**

For sharpening various turning and fingernail gouges up to 25mm wide. Supplied with labels to record jig settings for each gouge. Makes it really simple and controlled.

#### **SVS-50 Multi-Jig**

For all skews and roughing gouges, using two holders.

### TTS-100 Turning Tool Setter

Works irrespective of the stone diameter. Enables exact replication of the edge on bowl and spindle gouges, flat and oval skews.

EGK-400 Bench Grinder Kit £139.96 Code 504087

Total cost for BGM-100, SVD-185, SVS-50 and TTS-100 bought separately £192.82

SAVE OVER **£52** 

If you decide to upgrade to a Tormek machine later this system is fully compatible

For more information call **03332 406967** or visit **brimarc.com/bgk** 

<u>BriMarc</u>



# Turning wooden fruit

Colwin Way gets right to the core of using jam chucks when turning fruit...

am chucks were among the first things I was taught how to make and use when I started turning as an apprentice more than 30 years ago. They solve a host of workholding issues and are capable of holding a wide variety of projects, from bowls to wooden fruit. This gives the turner scope to push their turning limits and also allows them to start thinking outside of the confinements of conventional chucks.

I have been demonstrating the making and using of these chucks to woodturners all over the country for a number of years. These demonstrations always produce the same reaction and generate many questions. They solve a lot of holding problems and create a method of holding your work without leaving any marks.

To demonstrate the use of a simple jam chuck we're going to make a batch of fruit. Wooden apples and pears are a project most

turners will try, but rarely do I see anyone use the jam-chucking method. This is a shame because not only do I find this a lot quicker but also – and most importantly – when turning the main shape it allows you to see the outside form having nothing hidden by a screw chuck, which is by far the most common method used. Apples and pears may look to be a fairly simple form to turn, however, get the shape wrong and they simply won't look right.

Over the years I've turned thousands of pieces of fruit and I am always excited by the variety of colour we have to work with in our timbers. I try as much as possible to use unusual pieces of timber. This doesn't have to mean exotic, but timber where an unusual grain or colour comes through; it also gives us the opportunity to use those small pieces of timber that would normally be discarded from the workshop.

### COLWIN WAY



Colwin started turning aged 13 and has since gone on to teach the craft and wishes to continue to give people confidence to try the wonderful hobby for themselves. Colwin was

born and grew up in Lyme Regis, a small seaside town in the southwest of England and is still living in the area with his wife Vicki and two sons, Finley and Charlie.

colwinway@btinternet.com www.axminsterskillcentre.co.uk



### PLANS & EQUIPMENT **EQUIPMENT USED** Marking gauge **Bradawl** Mallet 15mm four-prong drive Tailstock centre 20mm spindle roughing gouge 6mm bowl gouge 10mm bowl gouge 3mm parting tool 12mm skew chisel Cellulose sanding sealer Stitched mop 150mm Looseleaf mop 150mm Carnauba wax Buff polishing compound Tripoli polishing compound Beech dowel as knock stick **Pigtail** Sanding disc 80mm (31/sin) Cloves







### Turning the fruit using the jam chuck

1 For this batch of fruit, I prepared 30 pieces of timber in a variety of colours. Where possible, cut from longer lengths - after cutting the corners off on the bandsaw first - allowing you to keep the toolrest in the same place all day rather than having to move it after roughing. The timbers featured in this picture are a beautifully rosy red padauk (*Pterocarpus* soyauxii) and a green and white laburnum (Laburnum anagyroides)

Accurately centre up your blanks. I do all my centring up with a marking gauge because I rarely have corners on the blanks to use a rule on and very often have misshapen pieces. Here you can see how the marking gauge leaves an 'x' on this piece of spalted beech (Fagus sylvatica)

3 After centring up, tap in your chosen drive centre, making sure that you get a good grip. Accurate marking is essential to any job, but so is preparing the blanks. By marking and locating the drive in all the prepared blanks it saves time when turning due to everything being able to be picked up, located and fixed between centres quickly and ready to turn



15

I choose to use a 15mm four-prong drive as it's small enough to stay out of my way and only leaves a tiny area to clean up at the end when holding the pieces of fruit in the jam chuck. In the tailstock a standard single pointed revolving centre is used; again this will leave only a small point to clean up at the end

5 Now to start the turning. Start by roughing down using a 20mm spindle roughing gouge and remember that, because the corners have been cut from the blank before mounting on the lathe, the toolrest can stay in position

Once roughed down, start the shape of the blank. Use a 10mm bowl gouge for this over a spindle gouge as it has far more structural strength and means you can cut right into the centres without chatter occurring. The shape is up to you. We all have in our minds the perfect shape for a piece of fruit, but don't get caught up too much in this. I think the best thing to do is to look at cartoon apples and pears – and not real ones – which will give you nice rounded shapes

Once you have turned the main shapes, finish as tight as you can to the centres by using a 3mm parting tool and side scraping, blending in the shape as you go

At this point you can look to sand to a finish. The grades I use for most pieces are as follows: first, 100 grit, which is the hardest working and needs to be used until all turning lines and/or torn grain have been removed. Then use the following order: 150, 240, 400, 600. This may seem to be a large jump, but works on most timbers. If you're struggling to get rid of the sanding lines, however, add in a 320 and sand for longer on each grade

When all signs of sanding have been removed, give the piece a coat of sanding sealer. I prefer to use cellulose sealer diluted 50/50 with cellulose thinners as this means the sealer will soak in a long way and cut through any oily timbers to seal in the grain. When the sealer has been applied just wipe off the excess; there's no need to do any further sanding or burnishing at this stage as the abrasive polish will do this for us at the later stages

When all your pieces of fruit have had their outside shape turned and sanded, it's time to use the jam chuck. Here I'm using a set of large jaws to hold the jam chuck

1 Gently offer the first piece of fruit into the chuck using a piece of beech dowel as a guiding rod and a knock-out bar. Slightly soften the contact end of the dowel with some abrasive so the rod won't damage the fruit it's knocking out. Gently tap in your first piece of fruit – a single tap should be enough as continued tapping may split your chuck or make your piece of fruit get stuck

































12 To clean up the ends of the pieces of fruit use a 6mm bowl gouge with an extra long grind on it, leaving a very small tip to the gouge for detail

13 Now, taking small cuts remove any waste timber where the centres once sat, remembering to rub the bevel to prevent catches. You can see from this picture I have the flute facing away from me at about the 2 o'clock position. This gives me a great view of the bevel when it's rubbing. Once the waste has been removed sand the freshly cut face and apply sanding sealer

When you've top and tailed your fruit, drill for the stem to be attached. Use internal step jaws, which are the same type of jaw you would normally see on an engineering chuck. I use these because they close down to 1mm so have no problem in holding my 4mm drill bit. I found this the safest way to do this step and it must be done with a sharp drill bit so you don't have to push onto the drill. Only expose enough drill bit for you to use as, at this size, too much side pressure can snap the bit. The underside of the piece of fruit needs to be drilled with a 2mm drill bit to accept a clove stem to properly finish off your apples and pears

15 Here are how the apples and pears should look when turned, sanded, sealed and drilled

Polish with a selection of polishing mops attached to the lathe with a pigtail. You can see there are several ways to attach your mops, but I tend to stick either with a pigtail held in the chuck or in the Morse taper of the lathe

The polishing process is a really pleasing one and also acts as the final sanding due to the polish itself. I use two types of polish, one for dark timbers – tripoli/tripomax – and one for light timbers – buff. These polishes are applied with a stitched polishing mop at a speed ranging between 1,000 and 1,200rpm. Once all the pieces have been polished, you can add the second part of the finish in the form of Carnauba wax applied this time with a looseleaf mop and at the same speed

This is now how the apples and pears should look after the final polishing process

Now we can draw our attention to turning the stems. I prefer to use dark timbers for this because I think they look far more authentic; in this case sonokeling (*Dalbergia latifolia*) cut into 6mm squares which I can feed up through the lathe and are gripped with the same stepped jaws we used for the drilling

2 O Using a small skew chisel turn a taper making sure that the thin end of the taper becomes smaller than 4mm. Sand the stem gently with 240 grit abrasive and polish with a friction polish or just add a coat of sanding sealer to darken the wood before parting off with the skew

2 1 Attaching a sanding disc, here you can see I've secured a piece of ply to a faceplate ring which in turn connects to the jaws on my chuck. Taper the back of the ply disc and stick on hook backing so you can use hook-and-loop backed abrasive discs

22 Sand one side of the freshly turned stem to give the impression that the stem is bent

23 The stem will now push fit into the piece of fruit ready to be glued in at a later stage

Here you can see the clove placed into the bottom of the piece of fruit looking really realistic and adding a great finishing touch

25 The finished fruit with their stems and cloves glued on

Here the fruit now have their labels attached giving the names of the timber which you should recognise as mulberry (*Morus spp.*), acacia (*Umbellularia californica*), padauk, yew (*Taxus baccata*), spalted beech and laburnum

### **HANDY HINTS**

- Use a sawtooth bit when cutting end grain and a Forstner bit for cutting side grain. You will end up with cleaner cuts. The Forstner bit has no teeth on the upper cutting rim edge and thereby gives a cleaner, more precise, cut in side grain. However, it is a bit slower than a sawtooth bit in cutting the wood
- Choose bright, colourful and interesting grained timbers for making fruit. They will always be the first to sell
- 3. Choose a soft timber with a light grain for making your chucks and avoid timber such as ash, chestnut (castanea sativa) and pines (Pinus spp) which are known to split easily
- 4. When drilling use wax polish as a lubricant if you need to. However, don't use too much or you run the risk of cross-contaminating the work
- 5. Keep a separate jar of sanding sealer for timbers like padauk as the sealer will get contaminated with the colour and start leaving orange streaks on paler timbers













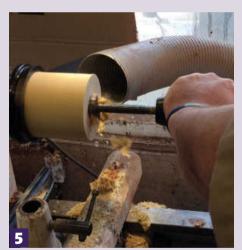
















# Making a simple jam chuck

To make our jam chuck I'm using a piece of tulipwood (*Liriodendron tulipifera*). This timber is perfect for chucking as it is relatively soft with no heavy grain structure, but sycamore (*Acer pseudoplatanus*) and lime (*Tilia vulgaris*) are also ideal. The dimensions for the chuck I'm making here are 100 x 100 x 100mm, but yours will have to suit the size of fruit you're making

We start the chuck by roughing down the piece of tulip to a cylinder, I'm using a 20mm spindle roughing gouge with the timber held between centres. When the blank is a true cylinder clean up the tailstock end, using a 10mm bowl gouge with a fingernail grind, using the bevel to rub the surface of the timber and the flute facing roughly 2 o'clock

3 Now the blank can be taken off the lathe and a four-jaw chuck mounted. Use a set of large gripper jaws to hold the cleaned up face of the blank. You now have access to the other face of the tulip blank and can also tidy the area ready for drilling using the bowl gouge

We now think about hollowing out the chuck ready for use but before we try and turn, the task is made a lot easier if you drill a hole through the blank. Use a keyless chuck in the tailstock and a 40mm sawtooth – remember sawtooth bits are intended for end grain cutting whereas the Forstner bit is for side grain

Cut two-thirds of the way into the blank keeping the hole clear of shaving by retracting the drill bit frequently and, if needed, by adding wax polish as a lubricant. Once this side is drilled to two-thirds, turn the blank over and drill from the other side until the blank has a hole running all the way through it. The speed of the lathe with this size bit is around 600rpm

Now that the blank has been drilled through, turning the rest of the chuck out is a much easier task. Start from the inside of the chuck and work outwards, cutting the side grain as you go, with the flute of the gouge facing 10 o'clock. This method is much easier than going straight for the end grain, which you will only do when cutting the taper to the inside. Taper both ends of the chuck to slightly different sizes, meaning different sizes of fruit can be held

After the turning is done, both sides can be sanded with a coarse abrasive. You will need to experiment with the taper to see which gives you the best grip – too small a taper then the grip will be tight and you could get the fruit stuck and damage it trying to get it out whereas if the taper is too great the grip will be poor and the fruit may dislodge before intended •

### **WOODWORKING INNOVATIONS FOR OVER 80 YEARS**





ACCURIGHT®

CENTER MASTER

Blank Creation System



FACE-OFF™ Modular Faceplate System



STRONGBORE™ Modular Boring System



ACCURIGHT®

Circle Cutting Jig



ACCURIGHT® BAND SAW LOG MILL™





Austria/Furone



Germany/Europe



Australia





www.austavsenas.no/



Band Saw Accessories
Lathe Accessories
Band Saw Guides



Band Saw Blades
Band Saw Tires
and More!

Innovative Solutions for all your Woodworking Needs

# Making pens from scratch

– part 1

In the first part of a new project,

Walter Hall turns the core section of a fountain pen

ot even the most dedicated of pen turners could argue that making simple pens from kits is the most challenging aspect of the hobby of woodturning. In previous articles in this series I have looked at several ways in which the developing maker might seek out more challenging methods and techniques for working with kits or making their own blanks. Eventually, however, the more adventurous amongst pen makers will seek out the ultimate challenge of making pens from scratch, using only basic components such as nibs and feed mechanisms for fountain pens and refills and click or twist mechanisms for ballpoints.

Over the next few articles I shall be making some pens from scratch, starting this month with the core of a fountain pen, usually known as the 'section'. This is the part of the pen that holds the nib and the ink feed or cartridge together and is threaded to fit into the body of the pen. I made this one, for reasons I shall explain later, from aluminium. Next month I shall complete the pen by making the body (barrel) and cap.

I should explain at the outset that I am not an expert in making pens from scratch,

and I shall be sharing my learning process and disasters with you along with my successes. Those with more experience of making pens from scratch or anyone with ideas or techniques is welcome to contact me with suggestions. I will be happy to incorporate or share them as appropriate in future articles.

### Making the 'section'

The principle skills involved in making this part of the pen are rather more akin to precision engineering than woodturning. Accurate measurement, careful drilling and tapping and the cutting of external threads with dies are at the core of the process. Some specialist tools will be needed – principally correct sized drills, fine taps and dies and the means to use them on or off the lathe. Finding some of the more specialist taps and dies in the UK can be a challenge, I had to import some of the ones I used from the USA where they are more readily available.

A tailstock mounted die holder is also essential to ensure that externally threaded components have threads that are straight and true to the axis of the component.

Choosing an appropriate material for the section is also vital. The research I have done suggests that one of the best materials for making the section of a pen is ebonite, which

is a kind of hard rubber. Other suitable options are alumilite resin or soft metals such as aluminium or brass. Some polyester resins, as I found from experience, are too brittle for the making of such delicate parts. I shall conduct more experiments with other materials later and am happy to receive suggestions.

The choice of nib, feed and ink converter will determine the dimensions and tap sizes required. I used a 5mm Bock nib unit from Beaufort Ink who also supplied the ink converter and the appropriate tap for the feed. This, and the availability of suitable taps and dies led me to decide on 8.5mm x 0.75 threads for the section to barrel connection and a triple start 11mm thread for the cap to barrel, which will be used in the next article. These latter taps and dies all had to be imported. You may wish to try the more affordable and easily obtainable standard metric fine threads until you see if pen making from scratch is for you.

### WALTER HALL



Walter Hall is a woodturner who has specialised in making pens and pencils for more than 20 years. Based on the beautiful Northumberland coast in the UK, Walter sells his bespoke pens and pencils

through local craft centres and via his website.

walter@walterspens.co.uk www.walterspens.co.uk



I imported some specialist taps and dies from the USA



A tailstock mounted die holder is essential



The nib unit came from Beaufort Ink



### **EQUIPMENT USED**

TCT cutting tool – or beading & parting tool/HSS scraper
Centre drill
Thread-cutting lubricant
Parting tool
Hacksaw
Tap holder
Abranet and Micro-Mesh abrasives
Farecla polishing compounds

### **MATERIAL REQUIREMENTS**

Ebonite, alumilite resin, aluminium or brass for the section

Nib unit, feed and ink converter

After an initial unsuccessful attempt using a polyester resin blank, which proved too brittle, I used some leftover aluminium rod to make the section. I mounted a short length of the rod in a scroll chuck fitted with small dovetail jaws

2 I used a tungsten-carbide tipped tool to cut a tenon for the 8.5mm section to barrel thread, measuring carefully to ensure the correct dimensions

The next step was to drill out the bore for the ink converter. This needs to be a good close fit so accurate drilling is of paramount importance. I used a centre drill to create a pilot hole, this helps to ensure that any subsequent drilling is centred and true

I then measured the diameter of the ink converter, mine was 6.35mm (¼in) so I drilled out to just under size at 6.3mm and then used an imperial ¼in drill to achieve an exact fit. I cannot stress enough that the fit of the converter is one of the keys to success in this project. A sloppy fit will result in disastrous ink leakages

5 Once the converter was a good fit I began the process of cutting the threads on the tenon. With the die mounted in the tailstock die holder and having applied a spray of thread-cutting lubricant, I turned the die and workpiece against one another by hand, slowly and carefully cutting and backing off to clear swarf

To finalise the thread up to the section body I reversed the die in the holder so the flat face was facing the work

Using a parting tool I then cut a recess at the rear of the thread so that when the body of the pen is attached it will fit snugly and flush to the section with no unsightly gaps

An important factor in achieving a good fit and a working section is careful measurement of the length required to fit the nib and feed. I assembled the components and measured with a steel rule. My measurements were accurate enough but Vernier callipers would perhaps be a better alternative









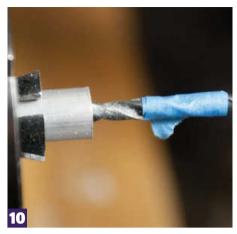




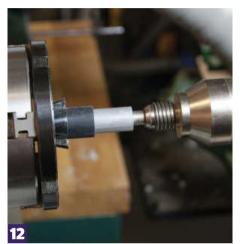




















I transferred the measurements to the component and then cut to length with a hacksaw taking care to achieve a straight cut and leaving a small amount of material to be squared off on the lathe. If you're using softer material such as ebonite, the parting off could be done on the lathe with a thin parting tool

1 With the section component reversed in the chuck and having once again prepared a starter hole with a centre drill, I drilled out first to the appropriate diameter for the tap that will cut the thread for the feed – check with the nib or tap manufacturer for the correct size for your nib – and then to size and appropriate depth for the body of the feed and a few millimetres for the collar of the feed. The exact dimensions will be determined by the sizes of your chosen components. I used tape to mark the drill and gauge the depth

11 In the absence of any more sophisticated technology I tapped the internal thread by hand using my old but trusty Moore & Wright tap holder. This produced a good result but I am sure there must be better ways of doing this, although so far my research has drawn a blank. Mounting in a tailstock chuck would be one option. Once again, suggestions are welcome

12 At this point I assembled the components and tested to see that everything worked according to plan. Once I was satisfied what I had produced might actually result in a working pen, I mounted the section back in the chuck for shaping. A jam chucking arrangement seemed appropriate to prevent damage to the threads and allow access with the tools to the whole body of the component, so I drilled and tapped an offcut of acrylic material and screwed the section into it, supporting the free end with a revolving centre in the tailstock

13 Shaping was done using a round TCT cutter, carefully creating the desired shape. I created a simple straight design to suit the minimalist style of the body that will be made in the next article. Remember that the finished section must have an external diameter small enough to fit through the cap thread that you intend to use

The final process was to sand and polish the section. I used Abranet and Micro-Mesh abrasives and finished with Farecla polishing compounds, but there is a wide range of suitable alternatives

15 With the nib unit screwed into place and the ink converter fitted, this stage is now complete and ready to receive the body and cap that will be the subject of next month's article

A final test with some ink just to make sure I have a pen and not an attractive ornament!











# Visit: www.realdealsforyou.com Follow us on: @Real\_Deals4You

### 8 Piece Splitproof Limited Edition Chisel Set XMS15CHISEL8

- Sizes: 6, 10, 12, 19, 25, 32, 38 and 50mm (1/4" to 2")
- Bevel edged blades are made from best-in-category steel





- 200mm x 70mm
- Use dry or with water
- Adjustable docking station
- · Supplied with storage wallet

**IRWIN** Marples.





### **SEO Special Edition Head Torch**

- 3 x high end white LEDs
- 1 x glare-free high end red LED light to protect night vision
- Smart Light Technology (SLT) power, low power and signal
- Up to 40 hours run time
- 40m beam range

£19.99







# Early Winter from



www.turners-retreat.co.uk





















## 15% OFF

any project accessories when you buy online before the end of November 2015







### Holdfast Vacuum chuck



Stickfast Stabilising System



Visit the Woodworking Show in Harrogate, 20th - 22nd November to see these in action - and pick up a bargain!



Book onto any course up to the end of March 2016 and receive a free smock worth £36.95



Tel:01302 744344 Email: e-shop@turners-retreat.co.uk



www.facebook.com/TurnersRetreat



twitter.com/@turnersretreat

Turners Retreat, Faraday Close, Harworth DN11 8RU



# Faceplate turning

### RICHARD FINDLEY



Richard is a registered UK professional woodturner living and working in Leicestershire. He discovered woodturning while working for his father as a joiner. He makes all kinds of work to commission, from replacement

antique components, walking canes and stair spindles, to decorative bowls. It is the variety of work that he loves. He also offers demonstrations and a range of woodturning supplies.

richard@turnersworkshop.co.uk www.turnersworkshop.co.uk Follow on Instagram: richard\_findley o, what is faceplate work? Essentially faceplate work covers any type of turning where the grain of the timber is running across the bed of the lathe – as opposed to along the bed of the lathe as in spindle work. Technically bowl turning is faceplate work, but as this has been covered a number of times by myself and other turners, I thought I'd look beyond bowl turning, at some of the other things that can be made in this fashion, and the problems associated with it.

My feeling is that faceplate work is seen as a poor relation to bowl work, and even spindle turning, and is perhaps somewhat overlooked. There is, believe it or not, much more to woodturning than making bowls. Some of the

things that fall under the heading of 'faceplate work' include:

- Bases for lamps and candlesticks
- Plinths
- Table tops
- Stool seats
- Coasters
- Chopping boards
- Rosettes

The main problems with this kind of work are mostly associated with understanding the grain direction and how to work with it to achieve the desired results. Without this understanding the results are usually torn grain, catches, poor shapes and poor finish.

### ■ Understanding grain direction

No matter whether you are turning a large tabletop, laminated from narrower boards to form the large surface, or a tiny rosette or drinks coaster, the grain will be running across the lathe. This means that as it rotates, you will be turning side grain, followed by end grain, followed by side grain and then again by end grain, and so it goes on. This combination of easy-to-cut side grain combined with end grain, which is much harder to cut - as well as the difficult transition between the two, which is cutting in totally the wrong direction against the grain - is what makes this type of work so challenging. There is nothing you can do about this. It is a fact that twice in each rotation, you will be cutting the wood in completely the wrong direction, which goes

against every principle of woodworking, but is simply a part of our lives as woodturners. Fortunately, there are a few things that we can do to lessen the harsh effects of this cutting against the grain action.

As you can see from the photographs, cutting square to the end grain is the least good option. This is why bowls made with a smooth flowing curve cut and finish easier than a square-sided bowl, often made by beginners. By working across the end grain in a curve, it reduces the harshness of the cut, as can be seen in the pictures. Sometimes a square edge can't be avoided, especially if a design calls for it. However, if you can, it will be easier to achieve a clean cut on a curved surface.



Faceplate work is usually circular, but mounting a piece of timber in this fashion really emphasises the problems of grain direction





...you can see just how much more cleanly the



...leaves a very torn surface. You can see here exactly the point where the timber is worked against the grain and tears



By cutting in the correct direction and in a curve...

### Direction of cut



Cutting in from the edge splinters the timber...

It is important to understand the direction you should be cutting in. With spindle turning you will cut from the top of each shape, downhill, to the bottom. This is also correct for faceplate work, but because the grain is running across the lathe rather than with the lathe bed, the top of the 'hill' is not in the same place as it is for spindle work. The top of the hill is on the face of the wood, rather than the edge. If you are ever in doubt as to which way to cut, imagine you are going to carve the work with a carving gouge and mallet. If you start at the



...whereas cutting out from the centre produces clean chips and leaves a clean surface finish



The comparison leaves little doubt as to the direction in which you need to cut

edge and cut in from there, you will splinter the wood, cutting against the grain. To cut with the grain you will need to work away from the edge.

# MYTH BUSTERS: 'FACEPLATE WORK SHOULD ALWAYS BE DONE WITH A BOWL GOUGE'

Generally speaking, I will keep bowl gouges for bowls and spindle gouges for spindles, but faceplate work falls somewhere between the two, often featuring similar turned details to those found on spindles but on a piece of wood that closely resembles a bowl blank. A bowl gouge is a strong tool, designed to reach over the toolrest and hollow out bowls, but faceplate work rarely has to be hollowed like this, so the toolrest can usually be kept close to the work, which means that there is no need for the deep flute of a bowl gouge. The shallow fluted spindle gouge will often be easier to use to form these details. The choice is really yours for this kind of work; my preference is for a spindle gouge but if you are more comfortable using a bowl gouge, then that's fine too. Never use a spindle roughing gouge though, as it isn't designed for this kind of work. As long as you work safely and you can make the shapes that you want with the tool, then go for it.

### **Making shapes**

Designs used in faceplate work vary from a simple edge mould to very detailed shapes cut into the face of the wood. For this article, I have made a trophy base and a rosette to show some of the range of cuts required for this type of work. The trophy base involves straight sides and a gentle edge mould which is cut with the wing of the tool whereas the rosette has much deeper beads and coves cut into the face which need careful presentation to keep control of the tool.

### Work holding

The term 'faceplate turning' is perhaps a misnomer, or maybe a slightly outdated term. A faceplate can be used, as can a faceplate ring or screw chuck, or indeed any method that you might use to hold a bowl. The thing to consider when choosing your holding method is the end use of the product. In woodturning circles, any unworked surface, or holding marks left in work, are frowned upon and the use of baize was pretty much outlawed in the mid-1990s! That said, in the trophy trade, baize bases are not only encouraged but are a necessity. The trophy bases I make have their bases flattened

on the planer and are held on a screw chuck before the baize is applied. Similarly, rosettes are applied to larger pieces of furniture, newel posts or decorative frames and so the backs need no more work than flattening before turning and are, again, held on a screw chuck. However, bases that can be examined closely,



The oak (*Quercus robur*) stool I made recently as a Christening gift

especially by woodturners, do need reworking. So techniques employed in bowl turning can be used to remove holding spigots. A recent stool I made as a Christening gift for a friend's son was held with a recess, which was filled with a disc in contrasting timber, engraved with an inscription.



The holding recess beneath the stool seat was filled with a contrasting timber disc with an inscription



Many items can have their bases flattened and be held on a screw chuck with no further need to work them

### Trophy base

I make a lot of different trophy bases for a local engraving company. In this case I was asked to make a copy of an original trophy base in sapele (*Entandrophragma cylindricum*). The shape is quite simple, which is ideal for an introduction into faceplate turning. The important areas are the straight section for the silver band, which needs cutting cleanly, cutting straight and to an accurate dimension, and the lower edge mould.

The first stages with any turning are truing up the blank, marking up the positions of the details and removing waste timber by blocking

out the final shape of the item. During these roughing and blocking out cuts you have plenty of opportunity to practise your cuts using different presentations and comparing the results before you get to the final shaping and finishing cuts. At this early stage you will be able to tell if the wood is going to behave itself or fight you at every turn. I was fortunate on both of the items I made for the article that the sapele and the American white oak (*Quercus alba*) turned beautifully with no need for extra treatment – which I shall come to later.

### Presentation

The way that you present the tool will have an effect of the outcome of the cut. The more shear the angle of the cut, the cleaner it will be. By shear, what I mean is the angle of presentation. A tool held square to the wood will cut, but will not produce the cleanest surface. By angling the tool to closer to 45° you will find a vast improvement in the cut surface.

You will be using some type of gouge to make these cuts and the exact presentation can make a huge difference to the outcome. Often a less experienced turner will try to cut right on the tip of the tool, but actually, by rotating the tool slightly and cutting just to one side of the tip, it makes the cut more shear and produces a much cleaner surface than when cutting right on the tip. This can be seen in the pictures throughout this article.

You may choose a push cut, slicing the

timber with the bevel rubbing, or a shear cut with a razor sharp edge and no bevel contact. Sometimes to find which is best you need to ask the wood by trying each cut to see the results. You will find that shear cuts are great for open shapes and long flowing curves, but



The initial roughing of the blank is done with my spindle gouge. Even here you can see the tool is held at a slight angle to the wood, producing a clean cut

for some details cut into the face of the work, you will need to use a bevel rubbing cut. Having the ability to use both types of cut will give you more options and more tools in your turning armoury, to tackle problems that may arise.



During the waste removal stage, you can experiment with different tool presentations to make sure you have it just right for the finishing cut

### ■ Use of scrapers

I have never been a great fan of scrapers, especially for bowl work, but I recognise they have a place, especially in end grain box making and for faceplate work, where working on the face of an item the end grain doesn't come in to play, they work very well indeed. My preference for this is for a round skew which is ground straight across – I never really got on with the round skew for its original purpose. Ground like this it becomes a negative rake scraper which can easily be rolled to around 45° when it becomes a shear scraper. It is now ideal for facing off the top of the trophy base and cutting little fillet details on the rosette, among other things.

# Flattening the top of the trophy base with my negative rake shear scraper

### Shaping the trophy base

With the silver band fitted I just have to shape the lower detail, which is a simple curve with a small fillet or flat at each side to add definition. Here I used two variations of a draw cut and a shear cut to perfect the shape and the finish. I began by cutting just to the left of the tip to put in the initial shape, rolling it more onto its side to produce a more shear cut as the shape progressed and finishing with a shear cut, where the flute almost faces the wood and there is no bevel contact, just a razor sharp edge, presented at around 45°, to skim off the



As the cut progresses I roll the tool further round to use more of the wing, making the cut more shear



The shape is finished off with a light shear cut



The base is then sanded

last few shavings. The fillets were then crisped up with the round scraper.

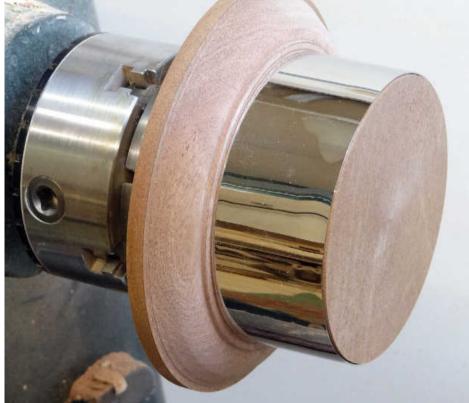
The base was then sanded 180 to 320 grit and ready for staining and oiling.



The silver band is dry fitted, which just leaves the lower edge mould to cut



Cutting the initial shape using just to the left of the tip of the gouge



The completed base, ready for staining and oiling

### Rosette

I don't make these very often, so I have dug out an old job that I did a few years ago because I felt the intricate shapes would offer a suitable challenge and be a good way of showing how to make the cuts cleanly.

As before, the design is marked out on the disc and the shape is blocked out with my spindle gouge and round scraper to cut the fillets on the face. The first shape that I turned was the ring which is visible from the side and face of the rosette. You will notice the pencil line on the face of the rosette, which marks the high point of the ring, the top of the hill if we were to continue the analogy from earlier, which means I need to cut down hill from each side of this line. Keeping the handle low and cutting just to one side of the tip, I gradually form the ring. The main thing to be aware of as you make this cut is that the shaving should always be coming from this point - just to the side of the tip - throughout the cut. This will maintain control of the tool and avoid a catch.

Having cut down both sides of the 'hill' from the face, I roll the tool over so the flute almost faces the work and use a light shear

The rosette has been blocked out and here I am cutting downhill to form the ring. Notice where the shaving is coming from on the edge of the tool



When working on the edge of faceplate work, the shapes 
Cutting the central dome need to be drawn out with the trailing wing of the tool



Sanding the rosette

cut to perfect the shape. Looking at the edge of the rosette, the ring continues around and there is a small half cove flowing up to the edge. These need to be drawn out using the wing of the tool. Ensure the wing is trailing to avoid a catch. I then use a shear cut to finish off the shape. The central dome is cut in much the same way as the ring on the face of the rosette. Keeping the handle low I cut just to the left of the tip, with the bevel rubbing, and form the shape.

The cove on the face can be tricky because if the presentation is not just right, the tool can try to skid across the face of the rosette. The handle is once again low and I slice into the cove, again using the part of the edge just to the side of the tip. As with a cove on spindle work, this cove is cut down from the rim to the base of the curve. I find keeping the handle of the tool low a real help at the beginning of the cut, raising it up and swinging it to form the cove. Having a lathe with a good centre height is a real bonus as it allows this unrestricted movement without the bed bars getting in the way. It is possible to make the cut on a smaller lathe, but you will need to feel for the best presentation



The same applies for the other side of the ring, only this time the shaving comes from the right of the tip. Notice the handle is held low throughout





The rosette, ready to oil

of the tool while maintaining control and producing a good shape. The rosette is then sanded, like the plinth, 180 to 320 grits and finished with oil to bring out the figure of the oak.

I've done all this but the grain is still rough! Some timbers are naturally more difficult to achieve a good finish with. Sharp tools and good presentation will get you most of the way, but sometimes the wood still doesn't want to do as it's told. I would recommend applying a coat of your chosen finish to the work. If you intend to oil the work then apply oil, likewise with lacquer, sanding sealer or wax. If in doubt then sanding sealer is a good option as this is the most compatible finish, being unlikely to interfere with your chosen final finish.

By applying a generous layer of finish, it will penetrate into those difficult areas and help to support and stiffen the offending wood fibres, allowing a freshly sharpened tool to cut them much more cleanly. In extreme circumstances you can reapply the finish before sanding to give that final bit of added support to the grain.



I use a shear cut to refine the shape of the ring



Cutting the cove in the face of the rosette - notice the low handle again



The complete trophy base and rosette



### THE REVOLUTI

The NEW MIDI 'Revolution' joins the competitively priced versatile hollowing family. Produced by Crown Hand Tools it joins the trusted Sheffield pedigree synonymous with the Crown Hand Tools range.

Ideal for medium sized projects for those wanting to start out in the craft of hollow form turning without purchasing a larger system.

The NEW MIDI Revolution includes a 19 mm diameter shaft with an overall tool length of 575 mm. The modular design gives full flexibility for turning a wide variety of vessels including bowls, boxes, vases and hollow forms, accessing those hard to reach places is easy with the Midi Revolution.

AVAILABLE FROM ALL CROWN TOOL DEALERS WORLDWIDE

SEE THE REVOLUTION IN ACTION- www.marksanger.co.uk





- Includes fully adjustable 'Super Ring' cutter for ultra efficient material removal without clogging.
- Includes scraping cutter for general hollowing or finishing cuts.
- Compatible with all other cutters from the 'Revolution' series.
- Slim-line articulated design for unrestricted access to those hard to reach cuts.
- For the turning of end grain and cross grain woods both seasoned and unseasoned.
- Hand made in Sheffield, England.

Email. Info@crownhandtools.ltd.uk

Tel. 0114 261 2300 Fax. 0114 261 2305 Web. www.crownhandtools.ltd.uk Spalted beech and turns a bowl from a spalted piece



### **BOB CHAPMAN**



After teaching chemistry for many years, Bob took early retirement to become a professional woodturner, and is a member of the Register of Professional Turners.

He was a demonstrator at the 2009 AWGB Woodturning Seminar and is available for commissions.

bob@bobchapman.co.uk www.bobchapman.co.uk

arge and impressive trees, beeches (Fagus sylvatica) often show themselves off well by preventing other plants from growing beneath them. They prefer a well-drained soil and then take even more moisture from it by means of their dense root systems. This, and the deep shade cast by their extensive leaf canopy, can make the area beneath them inhospitable to all but the toughest of other plants.

Beech trees seem equally at home in woodland or parkland and the biggest examples are often to be found where there are no competing trees nearby. In these more exposed positions the trees may develop significant buttresses at the base of the trunk, perhaps to better withstand the onslaught of winter gales. Amongst our most common trees, beeches are encountered on almost any walk in town or in the countryside, and they



Not many plants are able to grow in the shade underneath beech trees

contribute much to the tranquillity of many a country footpath. Beech's pinkish-brown timber has a close, even texture with a tight grain that works easily and will take fine detail. It is widely used for furniture and is an ideal wood for turning. In the kitchen many small utensils such as spatulas and spoons are still made from beech and in the past it was widely used to make bowls, platters and plates for domestic use.

Beech is particularly susceptible to



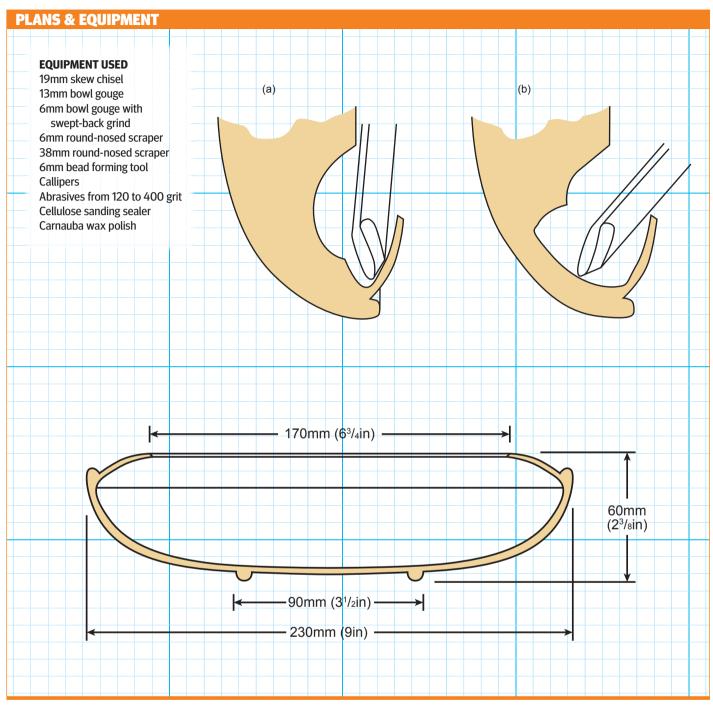
Beech trees grow to a large size when there are no other trees surrounding them



Beech is susceptible to spalting

spalting, a fungal attack that leads to the formation of irregular black lines and areas of pale creamy coloured wood. The fungal attack only occurs in timber with a high – greater than about 20% – moisture content, and stops when the wood dries out. Spalted timber is much prized and may command high prices, but if allowed to spalt for too long it becomes soft and crumbly and almost impossible to work to a good surface finish.

### ■ A spalted beech bowl



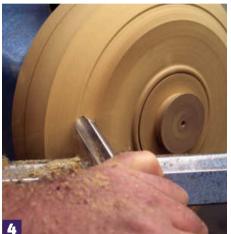
### Measuring and starting to turn

1 My blank was approximately 75mm thick and 240mm diameter. After measuring the blank I was able to sketch out the design I had in mind, and add a few simple measurements – see the diagram above. Mount the blank on an 8mm screw held in the chuck jaws and turn it fairly quickly to round with a 13mm bowl gouge. This will reduce the diameter to the final 230mm

















## Shaping the underside As this is a reasonably thick piece of beech

As this is a reasonably thick piece of beech you can afford to cut the spigot directly into the blank. Having removed the waste wood with the bowl gouge, the spigot is converted into a dovetail using the long point of the skew to form the angle

3 I like to make the foot of a bowl about a third of the overall diameter. Mark out an approximately 75mm circle and use a 6mm bead forming tool to cut a neat round bead into the blank. I used an Ashley Iles bead forming tool, which I find very useful for forming beads simply and accurately. Working carefully, remove the waste outside the bead, down to the level of the bottom of the bead

Bearing in mind that the opposite face of the blank has yet to be trued up and making an allowance for this, mark a line on the edge of the blank to represent the bowl's maximum diameter. Then use the bowl gouge to shape the bowl in a smooth curve from the foot to this pencil line

5 This piece is very nicely spalted – good black lines and some colour variation but with no soft or 'punky' regions to cause problems. Sand the surface from 120 grit through to 400 grit before sealing and polishing with beeswax and carnauba wax. There are conflicting opinions, and the jury is still out, on whether the fungal spores released by sanding spalted wood are dangerous or not. Why risk it? Wear a good quality mask to avoid breathing the dust

Hollowing out

Now reverse the bowl, holding the dovetail spigot in the four-jaw chuck. After truing up with the bowl gouge, the top face is angled down towards the pencil line marked on the edge. Stopping about 3mm or so above this line, use the 6mm bead forming tool to form the edge bead of the bowl

Juse a smaller 6mm bowl gouge with a swept-back grind to shape the rim in a gentle curve down to the bottom of the bead. Note the bevel is in contact with the wood and the flute is pointing to about 10 o'clock. Cut slightly to the left of the tip. Sand the bead and the rim to 400 grit before continuing. This is the time when the rim has its maximum support and I always think it best to finish as much work as possible on it at this stage

When starting a hollowing cut with a bowl gouge, encourage it to go where you want by making a starting groove with the long point of a skew chisel. Make a few preliminary hollowing cuts with the 13mm bowl gouge. Now we tackle the large undercut. Note there is still a considerable amount of wood in the centre of the bowl to give it rigidity while you are working near the edge

Use the 6mm bowl gouge to make the initial cuts down the inside of the rim. Now the flute is in the 2 o'clock position with the bevel in contact with the underside of the rim. Press the gouge gently in and to the right. The gouge removes wood fairly quickly and easily with the bevel in contact on the underside of the rim - see diagram (a) - but soon there is a need to work further down the lower curve of the bowl. The gouge cannot easily be used to do this, and diagram (b) illustrates how the shape of the rim makes it impossible to cut across the bowl with the bevel supported. In this position there is little control over the tool other than a strong grip on it – this is a catch waiting to happen

Scrapers, on the other hand, are designed to be used with no support from the bevel, and so the small gouge can be replaced with a homemade 6mm scraper. This tool is used to gradually extend the cut sideways towards the bottom of the bowl until there is enough room to present a bowl gouge correctly

"Scrapers, on the other hand, are designed to be used with no support from the bevel, and so the small gouge can be replaced with a homemade 6mm scraper"

1 Reverting back to the 13mm bowl gouge, remove the waste from the centre of the bowl, although access near the rim is still very limited; I had to leave a 'bump' for removal later

12 With most of the waste taken out of the bowl centre, the bump was removed by light cuts from scrapers, finishing up with the final cuts from a large 38mm scraper held horizontally with the cutting edge exactly on centre height

13 Use callipers frequently to check the wall thickness and keep it fairly even, and take care to make sure that the transition from the rim curve to the bowl curve is as smooth and 'bump free' as possible

14 Hand sand the underside of the rim from 120 grit down to 400 grit before power sanding the more accessible interior of the bowl through the same grits. The interior and the rim can then be sealed and polished in the same way as the bottom of the bowl





















### Removing the spigot

15 Finally, reverse the bowl onto the vacuum chuck and remove the spigot and centre of the foot with the 10mm gouge, leaving the 6mm bead standing proud. The final scraping cuts are made with the gouge on its

side, using the horizontal lower wing as a scraper. The same job could perhaps be done more easily with a straight scraper, but sometimes the right tool for the job seems to be the one you already have in your hand! A final sanding and polishing finish the job and it can be removed from the chuck

The finished spalted beech bowl should look something like this

#### **HANDY HINTS**

- 1. When purchasing spalted wood, examine it carefully for regions that have 'gone too far'. In a very real sense, spalting is just another name for rotting and it gradually destroys the fibre structure of the wood making it soft, porous and almost impossible to work to a good finish. If you can dig your fingernail into areas of the timber it is almost certainly going to cause you problems when you attempt to turn it
- 2. If your spalted timber is wet, put it somewhere where it will dry out fairly quickly, but not so fast that it might crack. Spalting only happens in wet timber. Drying it stops any further spalting
- 3. If your timber isn't spalted enough then wrap it in plastic film to keep it moist and put it in a warm place to promote spalting. Be sure to check regularly to make sure it's not gone too far. I confess I've never had much luck with this myself
- 4. There is argument about whether the fungal spores that remain in the timber

- are harmful or not. I can't give a definitive answer but, about 15 years ago I ended up in hospital with pneumonia caused by fungi they told me. It may be irrelevant, but I had been turning spalted beech, without a mask, about a fortnight before this diagnosis. Fortunately I recovered, although I still get short of breath very easily. Wear a good quality dust mask of at least PP2 standard
- 5. It may be worth experimenting with wood hardeners or soaking with cyanoacrylate or epoxy resin etc., to stabilise punky regions and make them easier to turn to a decent finish. There are no magic answers. You have to try it and see
- 6. Beech is the timber of choice for kitchenware, chopping boards, food bowls and the like, because it is known to be 'food safe'. However, I'm pretty sure that does NOT extend to spalted beech. Do not use it for food contact, babies' rattles or any similar situation where fungal spores may be ingested. It's common sense, isn't it?

# It doesn't have to be spalted wood...

TFinding spalted timber at just the right point for turning can be tricky and it is always difficult to predict just what the outcome will be – but of course, that's part of the attraction. Just as striking and unpredictable as spalted timber, are burrs – or burls – and none more so than those from Australia. Collectively known as 'Goldfield burls', they are more tightly formed than our native oak (*Quercus robur*) or elm (*Ulmus procera*) burrs with fewer cracks, gaps or splits in them, and they take an excellent finish. With this material you have to take what you can get and pieces are often odd shapes that don't lend themselves to conventional bowl making

This piece of brown mallee (*Eucalyptus dumosa*) burl was extremely hard and closely knit. Despite drilling the correctly sized pilot hole it was difficult to screw it onto the screw chuck so that holding recesses could be cut in the underside. Reversed first on one recess then on the other, the two bowls were hollowed quite easily with a freshly sharpened gouge, taking very light cuts to maintain clean edges where they overlap. I'm indebted to Philip Streeting for giving me this piece of burr •

### CBN Grinding WHEELS

#### State-of-the-Art Tool Sharpening

8" diameter, 5/8" arbor or 6" diameter, 1/2" arbor grits: 80, 180, 220 & 350

#### RADIUS EDGE

Custom grits and arbor sizes readily available with no additional charge in most cases

Regular price \$149.95

\$125

or get a pair for \$250 Please email:

KJRdistributing@gmail.com or visit our website to order

Lifetime Wavranty



WoodTurnersWonders.com 1.678.442.9454

# FrugalVacuumChuck.com

## 'the Thomas 240'

#### New Offering 240 Volt 50 Hz

The AFFORDABLE Vacuum Pump and Chuck



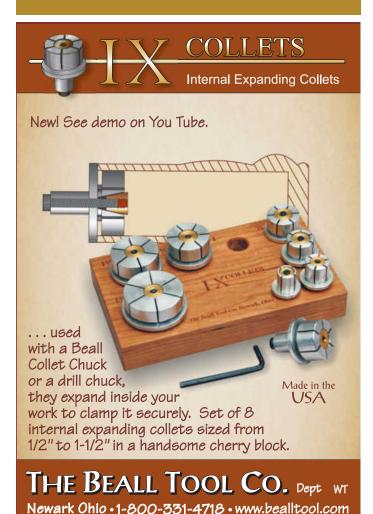
- ·Featuring ISO Remanufactured Thomas Pump 27"Hg 4.6CFM
- · Easy Assembly, Manifold Mounting w/Brass Fittings
- · All Pieces/Parts as Shown
- · Complete Instructions
- ·One Year Warrantee
- · See website for more details



'the Thomas 240' Kit w/Shipping \$320(US) £210

More Details/Order: www.FrugalVacuumChuck.com

Inquiries: FrugalVacuumChuck@gmail.com







# The development of turning

Australian turner Vic Wood reflects on 25 years of woodturning

rom the 1950s up to the 90s the attitude of most trade turners was to keep to themselves and not share ideas with one another as it could affect their business. Most 'Trade Turners' were turning between centres making veranda posts, staircase balusters, spindles for staircases, or legs of chairs and tables.

Gradually, automatic turning machines took over therefore there were fewer handson turners, but a few were making functional bowls, sugar bowls, platters and candle holders. Some used screws direct into the base of a bowl, others used independent three and four steel chucks and scroll chucks. Now we have four-jaw self-centring chucks with a number of different types of jaws with quick changing systems, helping speed up production.

Prior to the 1990s there was apprentice training in woodturning, there were very few colleges or schools teaching apprentices to turn and a lot of turners worked under a master turner, however, today they are either self-taught or learn from the many structured opportunities provided by organisations such as the American Association of Woodturners, woodturning clubs and chapters and events such as TurnFest in Australia, etc. Here, many skilled professional woodturners share their ideas and skills for artistic woodturning. Because there was less artistic turning and more focus on functional items back in the 1990s compared to today, there appears to be a trend as to who can do the most decorating by using the basic turning as a beginning, and then applying paint, decorative adornments, carving, etc.



Vic Wood

Vic Wood gained his early reputation from his subtle turned and carved wall plagues. He has since developed his woodturning and produces large pieces which are sold mainly through exhibitions, as well as smaller square-edged lidded boxes, which are his signature and are sold by galleries throughout the world. He has travelled throughout Australia and internationally teaching and demonstrating woodturning. He has also been a keynote speaker and demonstrator at national and international symposiums and judges many woodworking shows.

Email: vic.wood@bigpond.com

#### **Knowledge explosion**

There is so much more information and inspiration online now via things like Google Images, Instagram, Facebook, Pinterest, YouTube, web newsletters from suppliers and woodturners' own websites. The world of woodturning is much more accessible these days.

The important aspect of woodturning today is that professionals are prepared to give their knowledge to help other turners, either via teaching individuals in smaller classes or giving group demonstrations at symposiums or club meetings. Audio-visual monitors and microphones mean that groups can see and hear clearly what is happening at the lathe. The demonstrators need good sketches with computer-generated drawings, with models of tools, to help the audience understand grinds and shapes of chisels.

- If the demonstrator is a good turner, this does not always mean he can teach it. If you understand the demonstrator then he is doing a good job. He should have the ability to keep you involved throughout the session. Demonstrations are generally much better today than they were in the 1990s.
- Make sure to check about the demonstrator or person who is going to teach you before you commit.
- Chapters and clubs also promote turning and are becoming more professional about presenting topics. Still today very few woodturners are making a living from just turning and selling items. We see turners who have many 'strings to their bow', for example turning and selling functional items and turning to request. Some conduct classes; make DVDs on aspects of turning, sharpening or finishing; write articles for magazines on projects; or offer advice on types of lathes to purchase.

In Australia, turners demonstrate at individual woodturning clubs and also at 'Working with Wood' shows throughout the country. 'Turnaround Down Under' is held annually in Phillip Island, Victoria; with up to 110 attending, 45 turners will bring along a lathe and share their knowledge, there are no structured demonstrations. Each person will do their own thing, and experienced turners will help out the beginners without being bossy. The more you give the more you will receive while sharing information. Maybe you can help with sharpening advice and explain how to present the tool to make a particular cut on the wood safely, and give confidence to the participant. Being a woodturner in your own shop can be quite lonely and gathering together is great. 'Turnaround Down Under' is a live-in weekend, fully catered for, from Friday until Sunday. These weekends are organised by volunteers and any money



'Container Series' in sheoak. Finished with superglue, U-Beaut Shellawax Glow and Traditional Wax. 122 x 115 x 63mm



'In the family' in sassafras. Bark to bark, top of bowl heart of tree, turned wet (green) and surface dried with a propane torch, sanded and coated with one coat of Rustin's Oil, then put in the freezer for about 24 hours, removed and thawed out, then placed in the refrigerator where excess moisture was drawn out of the wood. Resanded and a final finish applied. 592 x 547 x 180mm

raised via raffles and silent auction goes to a local charity, Country Hope, and other recognised charities. There are numerous other weekend events held in Australia, including Forest Edge Victoria, Wagga Turnabout NSW and Saturn SA. 'TurnFest' is Australia's premier woodturning event. Held annually in Queensland, it presents world-class demonstrators with 350 plus participants, this means Aussie woodturners are kept informed of the latest development in tools and techniques.

#### Carving on turned pieces

Back in the 1980s and 90s there were no rotary carving tools available, most carving was done with hand tools, surforms and coping saws. Now with the progress in technology and suppliers becoming aware of the need for some form of powered tools, woodturners can adapt and use power appliances; hence the job is completed much quicker. Power mini carvers for removing excess timber, rotary tools - die grinder - with appropriate burrs, Dremel and ArborTech tools and accessories have made woodcarving much more advanced. Skill and safety precaution is needed when using these tools, as well as earmuffs, glasses/face shields and respirators or masks. Magazines and DVDs offer further inspiration and information about decorative techniques.

## Chucks and attachments

When I started turning we used blocks of wood as carriers, which could be either glued or screwed to the base of a bowl. Even a faceplate screwed to a block of wood was used to carry the main piece of the wood. Today turners have the advantage of a variety of four-jaw expanding and contracting systems, a very good quality of chucks and the use of variable speed systems for large and smaller lathes. For the hobbyist you do not need all the chucks and attachments, you can use wood fitted to your jaws, which gives you a variety of options, depending on your needs and direction.

Vacuum chucks are now widely available. There are also plate kits that have a vacuum pump with a chucking system to suit a number of different shapes, and a vacuum plate that fits onto the spindle head of the lathe, which can be controlled by a household vacuum cleaner. This was developed in Australia by Woodfast Machinery and Vicmarc Machinery in the late 90s and is now available worldwide using either system.

#### Hollowing systems

Hollowing systems are now available that use laser technology to measure the thickness of walls and ball bearing supports to suit



'Container Series' in blackwood, silver ash and red gum. Finished with U-Beaut Shellawax Glow and Traditional Wax. 135 x 120 x 80mm

your individual lathe, for example, Clarke's following systems and steady rest with laser. Clarke tools also supply another system by Trent Bosch – USA. This allows turners to achieve quite thin walls and much taller pieces through narrow openings.

#### **Drying techniques**

The process of drying green wood by air, kiln, microwaving or freezing and then placing into a refrigerator to dry it to a satisfactory moisture content, has developed in the last 30 years.

The freezing of wood – up to 24 hours in a freezer – is now being used by woodturners, enabling them to use larger and odd sections of wood. You can start with a full section of wood then part turn to possible shape – thicker – to allow for the final piece. After the process – freezer to refrigerator – has removed most of the moisture, weigh the wood every two days. Depending on the density of the wood it should stay up to four weeks in the refrigerator. The piece can then be turned to final shape and finished on the lathe. You have two options with a green section of wood:

1. Turn the piece down to the desired shape, dry the surface with a propane torch or heat gun, then sand to finish level and apply a coat of oil. Remove from the lathe

and finish the base, wrap it in plastic and place in the freezer for 24 hours until frozen. Remove and thaw out, then place in the refrigerator for three to five weeks. Weigh until the weight remains consistent. Our level moisture content is 12.5%, weight loss depends on density.

2. Part turn a large section of wood to about 25–32mm the thickness of the final bowl shape, then go through the freezing/refrigerator process. Obviously the process will take longer because the wood is thicker; trial and error with different structured woods is evident.

Freezing or using a refrigerator does not cover poor tool work which contributes to bad turning and torn grain or sanding marks. Normally the piece will not warp, change shape or split unless a felling shake was present before you started turning, and you are away from the heart of the tree and must not be in the walls of the bowls. Not normally suitable in end grain if you are making a bowl, you need to try different species of wood with different densities.

#### Cyanoacrylate

Cyanoacrylate development in the past 30 years has been enormous, high-performance cyanoacrylate adhesives, some of which are now flexible and odourless to finish or glue

timber pieces together comes in different thicknesses from very thin to thick, and in clear, black or brown.

Enhance your special piece of wood with thin superglue on project accessories, toy parts, shaker pegs, finials, knobs, eggs, fruit pieces, pen blanks, salt and pepper grinders, etc. It will be a permanent finish that will not wear as much, it is easy to apply and can be used as a filler. This advancement has made finishing a lot easier. Note: you need to sand your wood with fine abrasive before applying cyanoacrylate.

#### **Sharpening HSS tools**

The biggest problem about woodturning for the beginner, hobbyist or even professional is how to obtain a sharp edge on their turning tools. Most sharpening used to be done by holding the turning tool on a plate and was performed by hand. This did not work as well for gouges or give the ability to repeat the same grinding angle for each tool. To repeat a particular grind on individual tools, special jigs, angle gauges, holders for round or flat tools enable the turner to sharpen at exactly the same angle every time you use the grinder.

#### Better quality lathes

Turners now have a greater choice of both

large and small variable speed lathes.
Unfortunately lathes were developed by engineers who did not understand the functions required for the hobbyist turner who was looking to make items but not necessarily for sale. Lathe makers today need to listen to turners.

# Your safety in the workshop

Available now are fully protected powered respirators, for use in turning, carving and sanding applications. They are much lighter than the older versions and offer good vision. Combination face seal and hoods have improved protection for eyes and face against flying objects, they can also have earmuffs. With turners now using acrylic, plastics and dangerous woods, you must wear a mask or respirator. DO NOT MAKE ANY EXCEPTION, the dust will harm you. Sanding of pieces made on the lathe has developed using water, oil, superglue as a filler, improved types of sandpaper using coarse to fine grit paper, supported by using sharp tools, brings better understanding of quality sharpening.

#### Sanding methods

The latest sanding abrasives are much better in quality today. Turners can use abrasive cord grit in various grades, grits, gold sand mops, mesh green discs, sanding sticks in sets of three, sandflex abrasive blocks, Mac Mops, Flapwheel, Mesh paper, etc.

# Australian-made product finishes

U-Beaut Polishes were developed by Neil Ellis, he has a woodturning and carving background but found there was not a suitable finish available for turners. So U-Beaut was created and Neil developed a finish that worked instantly on the wood on or off the lathe. The finishes are suitable for smaller items, such as pens, ornaments, small bowls, door knobs and bowls. The products have been very successful, with overseas distributors in USA, Canada, South Africa, New Zealand, the Netherlands, and distribution all over Europe, Taiwan, China and Japan. This is an example of an Australian product now accepted worldwide. Other areas that have developed are variety of turning tools with better quality, from traditional gouges, skews, scrapers, and the quality of component parts for day to day turners.

#### **Conclusion**

In this article I have tried to show how turning has developed. There are many technical aspects that have improved – types of lathes,



Vic Wood setting up to demonstrate a 'container series' lidded box in blackwood with pine surrounding



Oak bowl — turned wet and edge beaded, then burnt with a propane torch. The dark colour inside the bowl was from water staining. 330  $\times$  180mm



'Burnt Edge Bowl' in red gum. Turned one year after the tree had been cut, the wood was still a little damp on the inside. Red gum continues to dry as you sand. Felling shakes appear in this piece. 355 x 63mm

variable speeds, rotary sanders, hollowing with and without laser, vacuum plate development, etc. – but safety equipment is also better in terms of versatility and accuracy compared to 20 years ago.

If you do not know how to turn, but want to learn, make use of all the magazines,

videos, DVDs, books, attend clubs, symposiums, some private teachers, use the internet – every bit of exposure will assist. If you do know how to turn, there are lots of ways to share your knowledge. My philosophy is the more you give and research, the more you will receive.



# Be careful what you wish for!

Young Aladdin here looks pretty pleased with what s/he gave rise to by rubbing at the (t)rusty old teapot ('Aladdin' just interjected, "Not!"). Maybe you'll not be so lucky though. So why not drop a few well-placed hints about the sorts of goodies that we can supply that will bring tears (of joy) to any woodturner's eyes.

If you're not sure, then feel free to call us for impartial advice based on our long familiarity with the equipment we sell. And you can be reassured that you will not simply be getting directed to the 'one we stock'. That's because, as a matter of principle, we like to offer choice in all things. Doing that is not always possible, but wherever we can we will. That way, if we say that we believe that a product is 'the best' for your situation, you can be sure that it's because we have also tried, and most likely also stock, the others.

If choosing is just too hard - and sometimes 'today' is not the perfect time to make a decision - then we can offer other options. What about a Gift Voucher? Available in any amount the giver chooses and redeemable in payment against any purchases at The ToolPost, they're the ultimate in flexible gifts.

Christmas, birthdays, anniversaries are all good times for giving - and receiving. Make sure that you enjoy the receiving as much as the giving by letting us help in the choosing. We're here to help. You could call that our genie-ous (ouch!) - but probably only if you have no shame.

Aladdin does it by rubbing teapots - but look what she got: who wants a GOG (grumpy old git) for Christmas?

From all of us here at The ToolPost, we hope that you have a truly wonderful Christmas - and lots of goodies to play with.

## The ToolPost

Unit 7 Hawksworth, Southmead Industrial Park, Didcot, Oxon. OX11 7HR 01235 511101 • www.toolpost.co.uk

sharing expertise



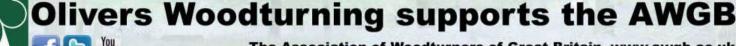
Olivers Woodturning Unit 5 Bearsted Green Business Centre Bearsted, Maidstone, Kent, ME14 4DF



Telephone: 01622 370280 E-Mail: sales@oliverswoodturning.co.uk Skype: olivers\_woodturning

Opening Times - Monday to Friday 9am to 5pm. Online 24 hours a day, 365 days a year.





# Bolt from the blue

**Andy Coates** on how a restless mind inspired this nut and bolt box

his project was born out of two things: boredom and observation. During a large batch run of spindles the mind can wander. In fact, batch turning anything is not the most interesting thing for me. Once the brain and muscles have got into the routine, it's easy to let them do the work on autopilot while you consider the problems of the world – what to make for dinner, perhaps, or whether it makes any sense to buy that new super-duper tool. Other turners, of course, may feel differently about batch work.

It was during one of these sessions, mind wandering where it would, that I think I actually noticed for the first time what a pleasing shape the transition from the square to the round, the pommel, can be. When cut cleanly with a skew it's a lovely shape. But we usually only see it one-sided. I wondered what it might look like as a two-sided shape. Surely it would be nice...

At the next opportunity to experiment I mounted a square of oak (*Quercus robur*) and had a play. As a two-sided shape it seemed to have possibilities, but for what? After some more playing I decided to lop off the corners from the resulting square flange. It created four leaf-shaped lozenges which could prove ideal for decorating, so that might be an option. But it was then that, to my eye, it began to resemble a nut. A stylised four-sided nut, but a nut all the same. As I had the skew



already in hand I cut some fake threads to the right and left of the 'nut' and there was the basis of an odd little box.

The first ones I made were from square stock, the corners knocked off the 'nut' section to create a stylised form. It seemed to work. So I made a box. As very little I do escapes the torture of the pyrography machine I decided to add some interest with a little design on the lid section. In a flash I had the design. Anybody around my age will remember the company name 'ACME' from American cartoons, and ACME seemed perfect for this object – and that's when the ACME Nut & Bolt Co box was truly born. Welcome to the world you little novelty you!

Since then I have refined the idea slightly, and progressed to actually cutting the blank into a hexagon prior to turning. While the

square version does work, the hexagonal version is far better. As with most boxes, the one-third top/two-thirds base section proportion works best, but for simplicity and ease of explanation I have used a 50/50 design here. You might decide to make yours to any proportion you like, the process is the same, only the dimensions will alter, and they should be easily arrived at.

Decorating the top as I do here is entirely personal. You may wish to leave the top plain, or decorate it in another fashion.

As ever I haven't specified lathe speeds. As a general rule of thumb the lathe speed should be as fast as is appropriate for your experience, comfort and safety. If you think it looks too fast, then it probably is. During abrading always reduce the lathe speed to about 500-600 RPM.

#### ANDY COATES

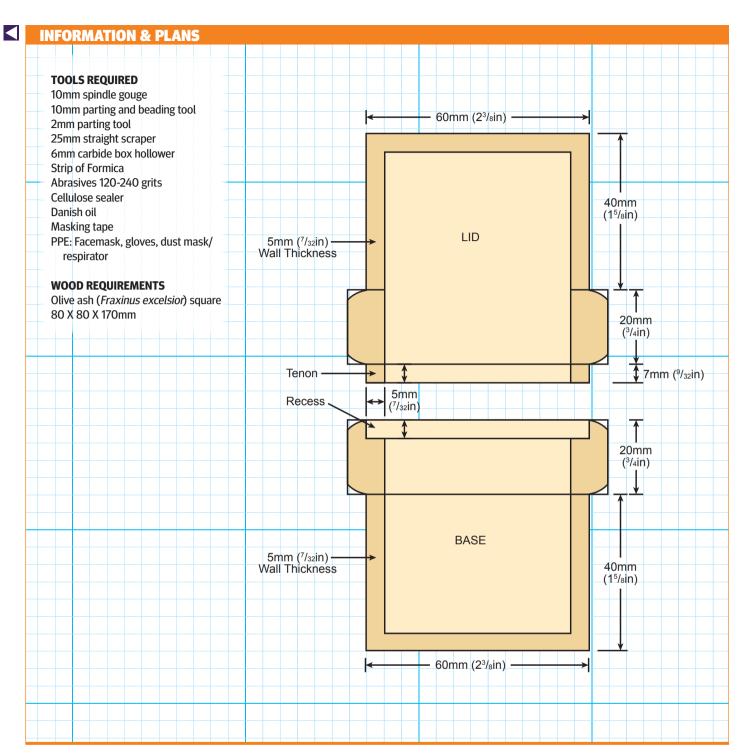


Andy is on the Register of Professional Turners (RPT) and is Chairman of the AWGB. He is a professional woodturner and has a workshop and gallery in Suffolk. He mostly makes

one-off pieces, but like any jobbing woodturner, is just as likely to be found doing small batch runs, antique restorations or any number of strange commissions. He also demonstrates and teaches turning.

cobwebcrafts@btinternet.com www.cobwebcrafts.co.uk



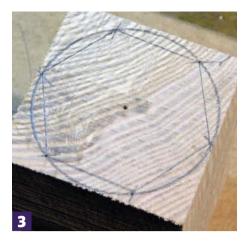


1 On one end of the blank, scribe a circle with a compass. Then place the point of the compass at the 3 o'clock position and scribe a line at the intersect with the circle. Move the point to the marked intersect and scribe the next line at the intersect with the circle. Continue until the scribed line intersects through the original compass hole at the 3 o'clock position

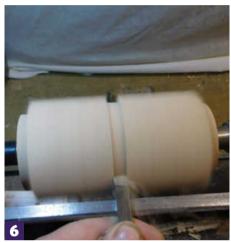
 $\label{eq:loss_problem} 2^{\text{Now join the intersects by marking with a}} \\ \text{pencil line. This will form the hexagon shape}$ 

















To provide a guide for cutting you can transfer the individual points down the side of the blank, on to the end, and draw the hexagon on the opposite end. You may only need to do this if cutting the waste away with a hand saw. If your bandsaw cuts straight and true this isn't necessary

You can cut the waste away either with a hand saw or a bandsaw. If using a saw you will need to hold the blank in a vice. If you are using a bandsaw that will cut to a depth of 170mm then you can cut the blank in the horizontal position. Take care and support the cut waste with a push stick. Cut to the pencil lines

5 Now mount the blank between centres. Here I am using a Morse taper adapter to save chuck removal in order to fit the steb centre. Cut a tenon on each end to suit your scroll chuck. Mark the centre of the blank for reference, then mark at 5mm either side of this mark and again at 25mm either side of this mark, as illustrated here. Mark the two outside areas with a 'X'. These are the waste areas

Using a 10mm parting and beading tool carefully cut down to the round. The diameter will be close to 60mm, which may also be the diameter of your tenon, however this is acceptable

Next remove the waste from the two areas marked 'X'. You can do this either with the parting tool or a spindle gouge, whichever is easiest for you. Keep the sides of the transition clean. You can abrade these two areas now. I abraded to 240 grit as I don't think a super-fine finish suits the box

The next part can be tricky if you haven't cut pommels before. Using only the long point of a freshly sharpened skew, take cuts from the outer edge down to the cylinder, working back to about 5mm at the top edge. Be careful to only use the tip of the skew and don't rush the cuts

This should leave you with a clean and shapely curve. Match this curve on the opposite side of the flange and then repeat the process on both sides of the second flange. These surfaces should need little if any abrading. If you need to abrade them take care as there are 24 points to knock your fingers!

1 O Using a 2mm parting tool make a cut, perhaps 5mm deep, to define the eventual parting place of lid and base. Now carefully abrade the resulting box tenon – to the right of the tool in this picture. The tenon should be parallel and true. Be careful of the points on the flange when abrading

11 From the right and left of the respective flanges mark the cylinder at 5mm intervals towards the base and top respectively. Cut 'V' cuts using the tip of the skew chisel

12 Your 'V' cuts should be clean and relatively even sided. You can make them as wide and as deep as you feel is appropriate. The idea here is only to produce a stylised thread pattern

13 Now take the 2mm parting tool and cut in the previously made cut to part off the base and top section. If you are not confident of a clean and safe part, stop the lathe and complete the final 10mm of cut with a pull saw

14 Using a vernier, or callipers, take the diameter of the tenon on the lid section. Transfer this to the flat face on the base section. Mount the base section in your scroll chuck ensuring the piece runs true

15 Using a 10mm parting tool cut the recess for the lid tenon. The flange for the tenon to sit on should be about 5mm wide. Take light cuts and stop the lathe frequently to check the fit. At this stage you are aiming for a tight fit

16 Hollowing can be achieved using a combination of the 10mm spindle gouge and the 6mm carbide box hollower

17 Once the initial hollowing has been achieved the walls and interior base can be cleaned up using a 25mm straight scraper. Use the tool in 'trailing' mode – handle higher than the cutting edge – and take care when you reach the base. Uncontrolled contact of the full width of the tool with the base can lead to a dramatic catch. The box should be about 52mm deep when finished

Aim for straight sides and a flat base. If you are struggling to achieve this, take care that you don't take too much wood away and cut through into the base of the 'V' cuts on the side of the box

#### **HANDY HINTS**

- You can add interest to your illuminated project by the addition of decorative features:
- Texturing to base
- Colour acrylic, patination waxes, spirit stains, metalized finishes, gouache, etc.
- Personalisation add a dedication or personal message to the base with carving or pyrography
- Metal leaf metal leaf will catch the light from the bulb and create a very appealing look

































19 Once the hollowing and finishing have been completed, abrade the inside of the box base. A Velcro pad attached to a bar makes the process easier. Abrade to finish, seal and apply oil finish. Do not abrade the recess for the tenon

Now mount the lid section in the scroll chuck. Hollow as for the base section. Try to ensure that the thickness of the wall is the same as the width of the flange inside the lid section. This is not critical but makes for a tidier box. Abrade, seal and finish as for the lid section

2 1 Now fit the base section into the lid. Your fit should be tight enough for the next stage, but if you are uncertain, wrap the join with masking tape to hold the two halves together. Using a 10mm spindle gouge carefully remove the holding tenon taking light cuts. Make the finished surface slightly concave. Abrade and seal

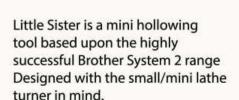
2 Now remove the box from the chuck. Separate the two halves and mount the lid section in the chuck. Use the box tenon to hold on to – some paper towel will protect the tenon from marking. Do not screw the jaws down too hard here. Using the 10mm spindle gouge remove the holding tenon, taking light cuts from the outside in. The bevel pressure will push the lid towards the chuck which helps to reduce the possibility of knocking the workpiece off the chuck

2 3 Make a series of decorative 'V' cuts and scorch them using a piece of Formica. You might decide to skip this step and decorate in a different manner, or perhaps not decorate at all. If so, abrade, seal and finish at this point. You can also cut a small chamfer on the top edge here to imitate the end of a threaded bar

24 I chose to pyrograph my usual text on the lid section. The text is blocked out freehand but you could draw it in first if you are not confident doing so. If you are making this box as a gift, perhaps for an engineer, then you could personalise the box with appropriate text

25 Once completed seal the lid section and apply the finish as before. If you wish you can also use a UV sealer on the pyrography to protect it from fading in sunlight. If the fit of the lid is still a little tight then you can gently abrade the tenon to loosen the fit •

LEFT: Alternative version of the box from a square



Compact fixing screw Hollow through 13mm openings with ease!

**Little Sister** 

**Big Performance** 

Tapered Stem for maximum rigidity

> Proudly Made in the UK

> > included

Talk with your stockist today

sales@hamletcrafttools.com www.hamletcrafttools.com +44(0)1142321338



An interchangeable scraper (ref HS187B) also available

RAFT SUPPLIES USA THE WOODTURNERS CATALOG

Supplying woodturners with the finest quality tools, accessories, and service since 1982.











# Irish seminar onto a winner

Editor **Mark Baker** popped over to Dublin for this year's IWG Seminar and found himself judging an awe-inspiring chapter challenge — as well as enjoying the craic...

ith a wide range of turning options, a complicated chapter challenge – see page 54 – and a huge amount of fun, the annual Irish Woodturners Guild's 2015 Seminar proved to be a real success.

Hosted by the same chapter for two consecutive years before moving on to the next town or city, this year's seminar took place from 25 September at the Radisson Blu, Dublin, conveniently located next to

the airport. The national seminar is run over three days. It starts just after Friday lunchtime and finishes on Sunday midafternoon. There were six demonstration points – conference rooms fitted out with a lathe, sharpening equipment, safety screen, audiovisual equipment, protective sheeting on the floor and comfortable seating – and a trade area large enough to accommodate five stands. There was also a room for the

display of turned work, with contributions from both demonstrators and people attending the seminar. The pieces were later categorised and judged in various competition sections.

Away from the work, lunch and dinner were served in a large dining hall, where the main presentations and speeches were also made. I was soon to learn the food was good, the company sound and the work excellent.



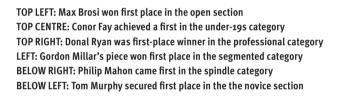
#### **▼** First-class talent















# Close eye on safety As a demonstrator at the IWG Seminar, we

As a demonstrator at the IWG Seminar, we had an initial meeting where all the relevant safety protocols were listed. It outlined what we could and could not do as demonstrators and covered fire escapes, first aid, rotation times, food and drink breaks and so on. This year, there was a new Health & Safety initiative in the shape of a taped orange line across all the demonstration room floors. It was positioned about two metres in front of the lathes and woe betide any attendees who dared to cross it. This simple device kept everyone clear of potential trips, AV equipment and, of course, sharp tools.

The lathes had full protective screens in front of them, too, and demonstrators had to use protective eyewear or full face shields. Any demonstrator found not to be using the minimum of protective eyewear was likely to lose his or her demo fee. A nice idea, I thought. Keeping on the safety theme, some seminars now state that it is obligatory to use a face shield for lathe-based demonstrations. Again something for organisers to think about, but it is a good suggestion.

The rotations represented a wide range of turning options so there was plenty of choice for people. This is vital for a good seminar. Diversity is a must. More and more people are tackling, or at least want to attempt, a wider variety of projects and enhancement techniques and it is important that seminars reflect this trend. Some of the attendees I spoke to during and after the event said that while it was fun to catch up with friends, it was also important to have

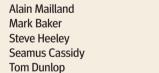
2015's IWG DEMONSTRATORS...



Demonstrators, including Kieran Reynolds, were obliged to use protective eyewear or full face shields

the chance to meet new people and see fresh ways of working. Two people told me it had been worth attending the seminar just to see one particular demonstration as it had solved some problem areas for them. The instant gallery and display were a delight. While there were perhaps fewer items than in previous

years, it was still a pleasure to see the diversity on display. Various demonstrators were asked to pair up to judge certain categories. This is always a hard job, but it's also fun as the judges can get up close to work to see how things were done. It also gives a real insight into what the makers are doing and what they have created.



**Curt Theobald** 



Curt Theobald had everyone's attention as he gave a demonstration on segmented turning tricks and tips



# \*IWG Seminar chapter challenge

This year's challenge was trickier than ever, with the teams given the task of creating a bike

s with most of the IWG seminars, a special chapter challenge was set. This year's task was to create a bike. A collaborative challenge, it involved lots of team work and, yes, lots of turning, although plenty of other skills were tested depending on which bike the participating chapters opted to make. Each of the eight finished bikes was stunning in its own way and they were all put on show in the hotel lobby. The display attracted huge amounts of interest from the hotel's visitors and guests, with many sending pictures to friends and loved ones in far-flung places around the world. It was excellent publicity.

As for my part, there isn't much that causes me to become vexed about things, but when Colwin Way and I were asked to judge the Chapter Challenge Collaborative competition this caused me some, shall we say, trepidation.

I am wary of being asked to judge or pick winners. Deciding what wins – and what does not – is always hard. People have put a lot of time and effort into making something and had the guts to submit it for a competition – many do not enter anything in any showing of work, let alone competitions. Then along

comes someone who has been asked to make a decision based on various criteria. I was at least glad not to be judging on my own.

#### LET JUDGING COMMENCE

Colwin and I set about doing our duty of trying to select a winner for this chapter challenge. I had never heard of such a challenge for a seminar. I know there have been amazing collaborative comps around the world before, but bikes? Well, to say there was a glorious display is an understatement. They were all stunning in their own way.

Anyway, it is fair to say that as Colwin and I pored over all the entries we noted exquisite detail from the laminated wheels, tyres and mudguards to the frame, handlebars and the bike chains and so much more. We were on our hands and knees touching and inspecting and in truth delighted in the detail. Sadly, we also had to find things that weren't quite right so that we could come to a conclusion as to which entry should win. I must admit to finding it almost disrespectful. There was a huge amount of time, effort and hard work put into the bikes – in designing, planning what goes where,



Members of the South East Chapter, who meet in County Kilkenny in the province of Leinster, were riding high after winning the challenge

working how to do it – let alone the precision required and to what scale. Simply stunning!

Well, after thoroughly checking every entry and much discussion, Colwin and I finally decided on the bike made by the South East Chapter, which meets in County Kilkenny in the province of Leinster.

Congratulations to them, but all the teams deserve much credit. Their bikes, displayed in the hotel lobby, were a real talking point. The turning community needs such attention to further people's knowledge and understanding of our work and this was wonderful publicity.







#### IWG Chairman Joe Laird says...

Where do you start when someone asks you the question, "Well, was it a good weekend?" I am speaking about IWG National Seminar 2015, held this year in the Radisson Blu, Dublin Airport. "Yes" is the quick answer.

There were two years of planning but all too soon, it seemed, the seminar was upon us again. The last few weeks leading up to the seminar are crazy for the host Chapter but we worked on the premise that "hundreds

of man hours would ensure that the event would be all right on the night!"

Most people who are involved in running such events know that they don't get to see much of the actual demonstrations themselves. However, other things more than make up for it. The IWG Seminar is probably the happiest seminar in the world – full of Irish humour, Irish welcomes and Irish fun.

Eight years ago I brought a new competition

idea to the table called the Chapter Challenge. Over the years there have been many exciting 'challenges' but this year's was the highlight of the seminar for me. The bicycle display in the foyer of the hotel was a sight to behold and rapidly became a worldwide phenomenon. Can we beat that next year? We will certainly try! For more images from this year's IWG Seminar and information about applying to host the 2016 event, go to www.irishwoodturnersguild.com.

#### The Editor says...

There are various reasons why people attend seminars, but learning, sharing and having fun are certainly the main ones. The fun aspect was certainly evident at the IWG Seminar. The ribbing and banter - craic - from attendees during and after some of the demos was great and kept us demonstrators on our toes. At times, I was laughing so much I had bellyache - and I heard more than one howl of laughter from other demonstration rooms. It's fair to say that the IWG seminar is one seminar where fun is obligatory, the food is plentiful and it takes a lot of willpower not to partake of the goodies on offer; the learning is a bonus. I jest of course. Learning is important and all the people I spoke to insisted that they had gleaned much from the seminar.

There is something wonderfully different about the IWG Seminar. The combination of fun and learning and the closeness of

the participants, who extend such a warm welcome to newcomers, gives it the feel of a big extended family. It's unique. If you ever get the chance to go, please do so. You will be warmly welcomed and I am sure you will have a lot of fun.



There was a warm welcome - and much merriment - at this year's IWG Seminar

The genius of British design, the precision of German engineeering.
What a partnership!

What a partnersh what a lathe!

VB36+ Master Bowlturner lathe from £5690 It takes a lot to make lathes that the Teutons
— call "Professional"



Look
at these pricesthen take off 10% and
that's all you'll pay if
you order before
31st Jan 2016

the the best things

WivaMac lathes from £2090 DB6000, below, from £4010

Oneway lathes from £2105 2436, below, from £4920





# The ToolPost

Unit 7 Hawksworth, Southmead Industrial Park, Didcot, Oxon. OX11 7HR 01235 511101 • www.toolpost.co.uk

sharing expertise



#### Kurt Hertzog shares his thoughts on selecting hollowing rigs

#### KURT HERTZOG



Kurt is a professional woodturner, demonstrator and teacher and writes for various woodturning and woodworking publications in the United States as well as writing for *Woodturning* 

magazine. He is on the Pen Makers' Guild Council and is currently president of the American Association of Woodturners (AAW).

kurt@kurthertzog.com www.kurthertzog.com

here are many ways to create hollow woodturnings, ranging from the very traditional gouges to some of the more modern implementations of carbide cutters. With that said, what tools are used is driven mostly by the types and depths of hollowing being done. A bowl is a hollow turning as much as a lidded box, it has a different aspect ratio but it is certainly a hollowing. For the

most part, hollowing of those types of items is pretty straightforward and is accomplished using the standard woodturning tools. What about far deeper hollowed forms such as vases, urns and the like? They certainly range in size from the 'normal' to very deep. In WT 280 - June 2015, we explored hollowing in the generic sense and the basics using hand tools on the more common applications. This month, we'll delve into the realm of hollowing rigs. These are the units that take the tools out of the hands of the turner and provide the mechanical support to control the tool forces. With this support, it allows the user to simply guide the cutting process by manipulating the bar. These are pretty widely varied in their implementation but all share the goals of making deeper hollowing easier and safer. This is especially true when you wish to hollow through a relatively narrow opening. The mechanisation of the various offerings differ somewhat but their goal is to allow for greater reach over the toolrest while restraining the rotational torque that presents itself while cutting.

For those who already own a hollowing system, you might pick up a few tips on setup but we'll mainly focus on the basics for those who haven't yet committed to a system. My goal is to lay out enough of the basics to be helpful in the selection and setup of a hollowing system for newcomers. The cutters and scrapers used in the hollowing rigs are a topic of their own. Nearly every offering in the cutting and scraping arena will fit on or can be adapted to nearly all of the hollowing systems. We'll touch on them this month but they deserve more in-depth coverage of them in a future issue.

#### Safety

One of the beauties of the hollowing systems available is, by design, they take advantage of good support and leverage control. When hollowing with hand-held turning tools, the user can overreach creating potentially unsafe conditions because of the leverage issues and forces involved. When using any of the hollowing systems you might

encounter, you still need to be aware of the overhang limitations and leverage effects. Stay within the bounds recommended by the manufacturer and even temper those recommendations to the safer side if you think appropriate. By far and away the most critical issues are bar support on the front end and the locking mechanism for

the bar in the rear support of that design. Be certain you are cognizant of supporting the front of the bar in all instances being certain you don't ever let it slip off the front rest on either side. If your design includes using a bar capture system on the rear, use the safety pin, locking mechanism or whatever you are provided with by the

manufacturer to ensure that the back end of the bar always stays within their trap. A mishap at either end can create unsafe conditions in the blink of an eye. Of course, all of the standard good turning safety practices still apply as well and you should be using all of the appropriate PPE whenever you are turning.



Care must be taken to ensure your bar doesn't slip off your toolrest. Custom hollowing rests provide stops



Regardless of the bar design, the safety pin to prevent coming out of the trap, depending on design, is imperative

#### Question yourself on your needs

As you think about selecting any of the available hollowing systems, you probably should ask yourself several basic questions. The answers to these will usually point you to the hollowing system(s) that can meet your needs best. How big will your typical hollowed turning be? Working on a minilathe versus an extended bed large swing lathe along with your choice of turned piece size can help point you correctly to the right sized unit. How deep or, more appropriately, how far over the rest will you need to work? Hollowing 150 or 200mm deep is far less demanding than hollowing half a metre

or so down into a vessel. How thin will the walls of your work need to be? Nearly any rig will let you work to whatever wall thickness your skills will allow but bigger work with thin walls may drive the selection of a laser and possibly a centre steady. Both of these are handy to have but are additional costs that may not be essential if you do thicker walled work that isn't particularly deep. Beyond the laser for wall thickness knowledge, there are now several video options available, but these will be covered in a future article. Are you going to be working through

a small opening? While most hollowing rigs can be but aren't often used for a bowl type turning, they are usually used to hollow vessels. If the opening at the top of the vessel will be small with respect to the size of the turning, your choices for a hollowing system might be impacted. Perhaps the most difficult question is, will your system need to grow? You may work on a mini now but there may be a larger lathe in your future. Many systems are adaptable to a certain degree so thinking through this a bit may prevent the purchase of another unit later on.



Your first decision is to determine your needs for depth of hollowing or reach over the toolrest



Hollowing systems offer a laser attachment that will help with determining wall thickness as you are cutting



Adjusted to your desired wall thickness, when the laser beam falls off the edge of the turning you are there

#### Sizes of a hollowing bar system

There are many different implementations of 'non-hand-held' hollowing systems. These provide for the capture and control of the back end of the bar via a trap or other mechanical system with the front end riding on a toolrest. The very basic features that the shopper should be aware of are the size of the system and the type. When talking about size, the real key is how deep you intend to hollow and how big is your lathe. Nearly all of the hollowing systems are sized based on the lathe they will be used on. The bar sizes I'm familiar with range from %in to 1¼in diameters. The %in bars are for the depth of about 9in or less while the 1¼in bars are rated for 33in or less. Obviously a table-

The differences between the 5/8 in bar and the 11/4 in bar is reach and dampening

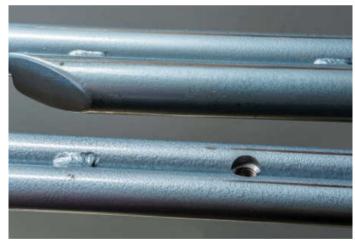
mounted mini-lathe will be far smaller than something intended for a lathe with a 24in or larger swing. When you are selecting your future hollowing system, pay attention to those that will upsize to a larger lathe. Depending on the manufacturer, you can get toolrests that will fit into a %in mounting and shim to a 1in. Depending on the style, your system may work on a 10 or 12in swing lathe and be able to be adapted to a 24in swing. Of course, the bar size may be a factor if you use your smaller rig on a larger lathe. Remember, the diameter of the bar and the mass will be the main determinant of how far you can reach over the rest as well as how much dampening your rig will provide.



Made for smaller lathes, this hollowing rig is capable of about 9in reach over the toolrest



My larger hollowing rig with a 1½ in bar can reach 33 in over the toolrest



The dampening of both size systems is considerable with the dual welded bars of %in or 1¼in

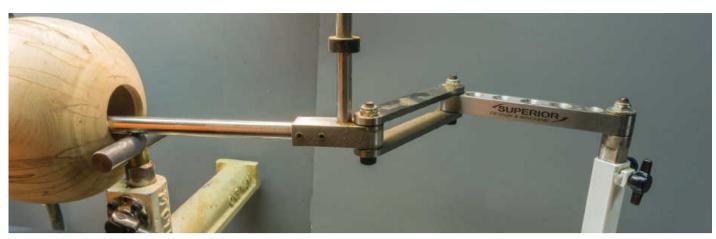
#### Types of hollowing systems

The capture hollowing rig first began as a bar with an outrigger shape to prevent rotation. It worked and still works extremely well. There is a trap at the back that the outrigger travels in and now with a safety catch pin to prevent it from disengaging from the guide trap. An alternative to this design is the side by side welded bar design. It uses the same concept of a trap at the back to support the back end with the side by side bar preventing rotation due to the guide trap. This system also uses a safety locking pin to prevent slipping out of the guide trap. The third common system

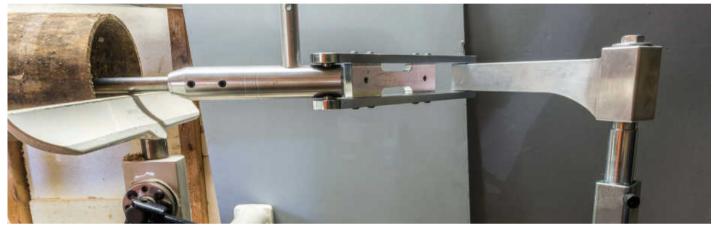
is a scissors type of system that avoids the need for a guide trap at the back end. It is held at the back with a support post fastened to the bed of the lathe. The front of the hollowing rig uses the same support as the other systems counting on the toolrest to provide the height adjustment for the cutting edge. Which is better? I have systems of all three types and they all work nicely. The scissors types I own are a bit less heavy duty by design and are quite nice to use. For the longest reach, I use my largest dual welded bar design.



One of the early designs of the captured hollowing bar system. Still working well



A scissors type design implemented on one of my small lathes. No need for the guide trap by design



Another vendor of a scissors design hollowing system implemented for a slightly larger lathe



My large welded side by side bar hollowing system. Massive dampening and long over toolrest reach

#### **Toolrests**

You can use your standard toolrests to support the hollowing rigs but take care to work directly over the toolpost. The rest is the strongest there. Be careful if you have cast rests since they are prone to break if you load them too much away from the toolpost. I favour using the banjo and toolrest specifically made for the hollowing process. Compact and strong, they feature movable pins to control the edge point. Not only does the pin prevent falling off but it also allows the bar to be levered against it.



The standard banjo and toolrest will work well provided you work over the toolpost for maximum strength



I favour the high strength toolrests with movable pins. Note the rest on the left with adapter sleeve partially slid on

#### Cutters

In the beginning, the tools of choice were a machinist's tool bit mounted either forward or canted to the side and a scraper bit that could be mounted. Many fine hollow forms have been and can still be created with these tools alone. Today, there are so many other choices that you'd be foolish not to give them a try. The many carbide cutters available can be mounted to the hollowing bar, as can the shrouded versions. Because these cut much more than the machinist's tool bit, you get curls and curls coming off rather than small chips of wood. Suffice to say, you'll have a world of cutting tools to bring to bear with the proper adapters for your hollowing rig. There'll be much more on cutters in a future



I set my cutter working edge height to be ever so slightly above the centreline of the work

issue. For now, whether you use a carbide cutter, shrouded or not, or a machinist's tool bit, adjust the cutter height to be on dead centre or slightly above centre for your inside cutting. I find that keeping the hollowing rig



There are an assortment of cutters available. These are my workhorses

level with my cutter adjusted slightly above centre allows for the best operation for me. There are other opinions out there so feel free to weigh those as you hone in on your own style.

#### **Cutting and cleaning**

Depending on your design of turning and type of cutter, you'll have to clean the debris at varying intervals. Hollowing through a smaller hole will prevent the cuttings from exiting the turning easily. As they build up inside, they will prevent a good cutting operation from happening. Stop regularly and clean out the debris for best cutting. An air hose inserted into the opening will usually blow out the chips. Be careful of your eyes and other people around you since the debris will be flying out and can easily be a hazard even if you're using PPE. Your style of hollowing will probably vary depending on whether you are a centre steady user or not. Starting at the centre and working out towards your desired wall thickness in stages will work nicely. Working an inch deeper at a time will leave sufficient stock to support the cut while you work. After you've achieved your desired wall thickness, work on the next inch down fairing the next wall thickness cut to the last. Using your same technique as hollowing the inside of a bowl will work nicely for you.



The debris needs to be cleaned periodically to allow for effective cutting. An air hose works well

#### To centre steady or not

Among the hollow form turners, there is a differing opinion on whether to use a centre steady. Those that do, typically create their outside shape to its conclusion prior to hollowing. Of course, they may need to leave some meat at the bottom for workholding strength but their planned use of a centre steady allows them to create and refine their form before they begin their hollowing. Those in the other camp who don't use a centre steady do their hollowing as they create their shape. By working step by step in the depth, they always have sufficient support to do their hollowing as they progress. Much like thinning the walls of a bowl in stages, this method prevents chatter and unsupported areas by working in stages arriving at the final form at the same time hollowing is completed. Either way will work. Both camps have plenty of their own good reasons for their choice. Personally, since I own several sized centre steadies, I usually employ them since they are already sitting beside the lathes. There are several styles of centre steadies available. There are some that fully encompass the turning and there are some whose framework doesn't completely surround the work. The rollers can be positioned properly but the mechanics



Centre steadies are available in several designs and in sizes appropriate for your work and lathe

allow for adding and removing the steady without dismounting things. This has an advantage but does take a bit of extra fiddling around to get things adjusted properly.



One of the newer centre steady designs whose frame doesn't surround the work

#### Measuring

We won't be covering the modern vision systems recently available for hollowing here but will in the future. A current lower-tech method is simply the use of a laser beam to indicate the wall thickness. Mounted above your cutting bar, you adjust the position of the laser with respect to the cutting edge so you'll know when that thickness has been obtained. The usual

method is to set the laser position away from the cutter edge by the dimension of the wall thickness desired. While cutting, the laser beam shows on the edge of the turning. When the beam falls off the edge, you've achieved that dimension of wall thickness. There are some tricks to setting the dimension based on the area of cutting and the type of cutter being used but those

are easily learned at the lathe. An even lower-tech option is the tried and true callipers method. Of course you'll need to turn off the lathe to measure but you can use the larger callipers for measuring down into your form to indicate wall thickness. These callipers come in many sizes and shapes and you can even use a bent coat hanger to check thickness.



Wall thickness can be measured with any of the standard measuring tools that will reach



My favourite is the simple coat hanger or welding rod closed to a gap and then compared as slid inside

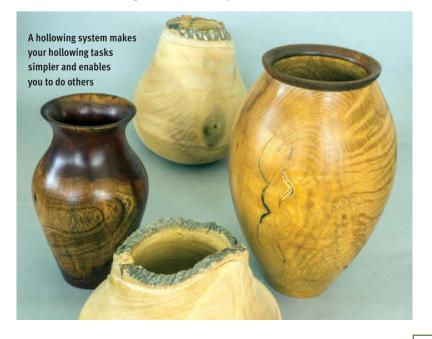
#### Your shopper's checklist

Are you buying for now, the future or both? The mechanics are your choice but the bar size depends on how big and how deep you intend to go. The original style, the scissors style or the two bar weldments will all do the same thing for you when sized properly. You choose your style and the size to cover your needs. Will you need or want a centre steady? They usually are sized based on the swing of the lathe and don't easily adapt as the hollowing rigs might. Is your current banjo and toolrest heavy duty enough for your needs or will you be in the market for a specific toolrest for hollowing? These are incredibly sturdy and will serve you well. They also have specific designs to help prevent falling off the edge. Your cutting choices are your own but the most economical to begin with will be the machinist's tool bits and scrapers. Very easy to grind and very modestly priced. Later on you can consider the carbide cutters if you wish. Pricier and a bit trickier so get your basics under your belt before you launch into these. If you are new to the market, don't be afraid to consider used equipment. Properly cared for, there is little to go wrong or wear out on hollowing equipment so bargain pricing may be had when buying second-hand. What about home built? I have used and own some home-built versions of hollowing systems. If they are built properly, they can be as functional as the commercially available units. Do take care that any home-built units are of the proper materials and have had quality welding done on them. Also be certain that the hardware is of the proper strengths. Commercial units will have grade 3 or grade 5 hardware to be certain it is up to the loading it will see. Be certain that home-built units have the appropriate hardware used.

#### **Conclusions**

Not every woodturner will have a need for a hollowing system but I must admit they are a lot of fun when you do. If you make hollow forms of any kind, you'll find the advantages of a hollowing system priceless. Once set up, the ease of 'steering' the cut with only fingertip efforts will get you spoiled. None of the systems I am familiar with is inexpensive but

they are a once in a lifetime buy if you select properly. Before you take the plunge, seek out a fellow turner who has a hollowing system they are willing to let you try out. With their assistance, spend a bit of time creating something from a fresh cut end grain mounted blank and I'm betting you'll be in the market for a hollowing system soon.



# John Davis Woodturning Centre

... a working woodturning centre run by Woodturners for Woodturners

not just a shop





SuperNova2 Chuck Nova G3 Chuck a selection of jaws available





# elipse Half Mask

- · Latex and silicone free, lightweight TPE face piece
- · Doesn't steam up your glasses
- · Can be worn under visor



The Old Stables, Chilbolton Down Farm, Stockbridge, Hampshire SO20 6BU

email: admin@johndaviswoodturning.com

www.johndaviswoodturning.com

Shop Open: Mon - Sat 10am - 5pm, Sun 10am - 2pm

Tel: 01264 811070

## **Double Ended Bowl Gouges**

#### **Perfect with our Multi Handles**

For the woodturner who wants more for less -and who doesn't-

these superb bowl gouges from premium toolmaker Henry Taylor are the perfect answer. Offering two alternative grinding styles -one on each end. These Sheffield-made gouges offer maximum versatility when paired with a system handle such as our new Multi-Handles. Available in 1/4", 3/8" and 1/2" flutes from only £41.94 - talk with your favourite stockist.





Standard Profile

Fingernail Profile

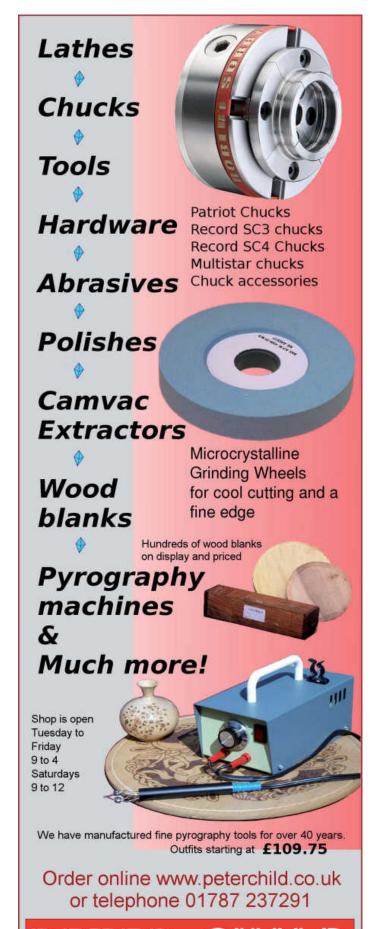
For the advanced turner we also offer these tools featuring the special grinds developed by renowned Irish woodturner Glenn Lucas, and which also feature in our signature bowl gouge range.



Hamlet Craft Tools www.hamletcrafttools.com sales@hamletcrafttools.com +44(0)114 232 1338 Available through
Henry Taylor
and
Hamlet Craft Tools
stockists worldwide



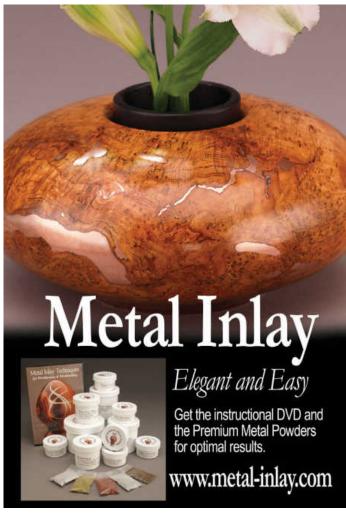
Henry Taylor (Tools) Limited www.henrytaylortools.co.uk sales@henrytaylortools.co.uk +44(0)114 234 0282



WOODTURNING SUPPLIES

The Old Hyde, Little Yeldham, Nr Halstead, Essex CO9 4QT

Tel 01787 237291 Fax 01787 238522 www.peterchild.co.uk





woodworkersinstitute.com

The UK's No. 1 source of information from the world of woodworking

Furniture &cabinetmaking Woodturning CARVING Woodworking



Latest news • Projects • Reviews • Techniques
 Competitions • Blogs • Forums • Giveaways

Europe's largest woodworking website offering expertise and a vibrant community

# PERFECT FOR CHRISTMAS

Give a subscription...



The magazine for today's woodworkers

Guidance and inspiration for ambitious carvers



Design and inspiration for furniture makers



Devoted to the scroll saw

...or treat yourself!



POST: FREEPOST RTHA -TGLU -CTSK, GMC Publications Ltd, 166 High Street, Lewes, BN7 1XU TEL: +44 (0)1273 488005 FAX: +44 (0)1273 402866 Please affix a stamp if sending from outside the UK.

WEB: www.thegmcgroup.com

Please quote order code A4945

	YES! I would like to subscribe / give a subscription for 12 issues to:					
ŀ						
	Woodworking Crafts for £35.70 was £51.00 £44.63 (Europe), £49.98 (Overseas)					
\	Woodcarving for £16.59 was <del>£23.70</del> £20.74 (Europe), £23.22 (Overseas)					
Furniture & Cabinetmaking for £35.70 was £51.00 £44.63 (Europe), £49.98 (Overseas)						
	Scroll Saw* for £17.95 £22.50 (Europe), £33.00 (Overseas)					
l	Payment methods (please tick and fill in chosen option)					
	I enclose a cheque made payable to GMC Publications Ltd, or Please debit my credit/debit card					
	Card No.					
	Start date Expires Security code					
	Signature Date					

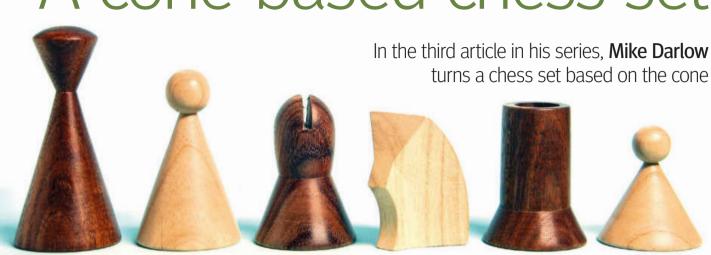
Ordered by					
Title	Initial	Surname			
Address					
Postcode			Country		
Telephone			Email		
Gift recipient (if different)					
Title	Initial	Surname	A COLOR		
Address					
Postcode			Country		
Telephone			Email		
uild of Master Crafteman Publications will ensure that you are kent up to date on other products which will be of interest to you					

If you would prefer to not to be informed of future offers, please tick this box

Offer expires 31/01/2016 Plus free gift with some issues

A4945 Image: Shuttersto

# A cone-based chess set



My pieces turned from blackwood (Acacia melanoxylon) and European ash (Fraxinus excelsior)

he design of anything reflects both the designer's objectives and the constraints that the designer willingly accepts or is forced to accept. When I design a chess set, I believe that a chess-playing stranger should be able to use that set without explanation or the possibility of confusion. And being a woodturner of acceptable standard but an indifferent woodcarver, I usually design all my sets' pieces to be turned, and to have little or no applied carving.

My intention in this article was to create a design with great playability and consistent set and piece signatures. I sized my set design for a board with  $50 \text{mm} \times 50 \text{mm}$  squares.

Conical lower sections are a feature of many

chess sets; for example, Peter Toepfer's later 19th-century set (see *Turned Chessmen*, figure 4.7). I adopted the cone as my set's signature, and it is present in all six pieces.

#### The features of my piece signatures are:

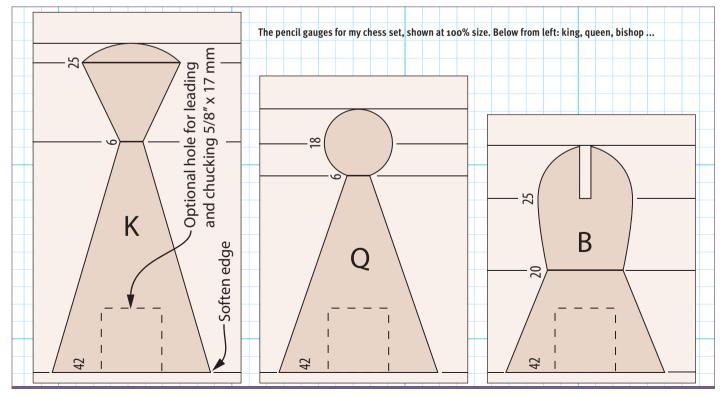
- My king has the conical set signature, surmounted by a stylised arched crown following the Staunton precedent.
- My queen surmounts the cone with an orb.
- The knight has a section cut from a turned and profiled ring. My ring's cross section features the conical/triangular set signature.
- The pieces' heights conform to the Staunton norm.

#### MIKE DARLOW

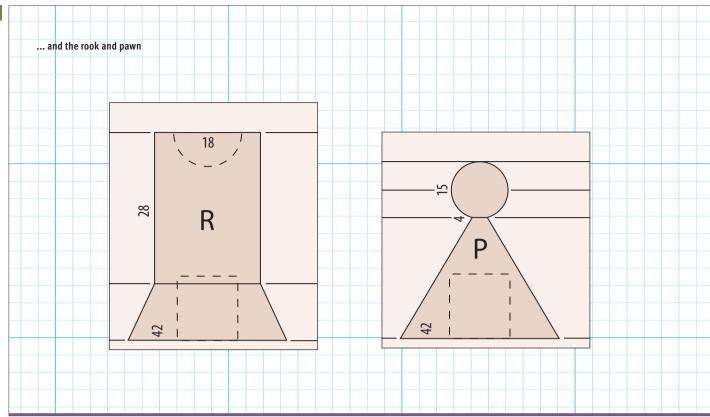


Mike Darlow lives in Exeter in New South Wales, Australia. He is the author of six woodturning books, three woodturning DVDs and about 150 magazine articles on woodturning.

mike@mikedarlow.com www.mikedarlow.com







#### Making the men, except the knights

I decided to lead my set although this is optional. Except for the knights, the holes for the leading have to be bored before the men are turned. If the reverse were attempted, the men's turned finished surfaces are likely to be damaged by the secure gripping needed.

In order to finish-turn their tops, the men's workpieces had to be held by gripping them using the earlier-bored leading hole. I used a homemade large diameter screw chuck.

#### The sequence of operations I used for the men, except the knights, was:

- 1. Turn a cylindrical workpiece for each man. I turned them to about 46mm diameter and each to a length about 6mm longer than its finished height.
- 2. Chuck each workpiece by its top end in a scroll chuck. Cut the workpiece's right-hand end slightly concave with a skew's long point. Bore the leading hole. The hole diameter has to be sized so that the workpiece can be screwed both on and off the screw chuck's screw.
- 3. The bishops workpieces were turned more carefully to their finished length and 44.5mm diameter. After boring the 16mm leading hole as above, I cut the slot in each bishop with a tablesaw using the jig shown here. This jig contained a vertical hole of 1¾in diameter, and this diameter could be squeezed to securely grip a bishop workpiece.



My homemade screw chuck. The threaded section is 5/8in BSW. The diameter of the drill used to bore the leading hole is 16mm – this allows a workpiece to be screwed on and off without too much difficulty because the chuck's thread only just bites into the surface of the bored hole



A blank roughed to about 46mm diameter. The three workpieces will be separated by cutting through the small-diameter sections with a bandsaw or hand saw



Cutting the right-hand end of a king's workpiece. A skew's long point is used to produce a slightly concave surface. The workpiece has been chucked by its top end in a scroll chuck. One way to chuck a workpiece truly axially: chuck the workpiece fairly firmly but not tightly; turn on the lathe; locate the blade of a skew flat on the toolrest and beneath the rotating workpiece; then gradually lever the workpiece until it's running true. Stop the lathe and tighten the chuck

- **4.** Screw each bored workpiece on to the screw chuck's screw. Having a workpiece's right-hand end located by the tailcentre's centre point as you screw it on aids axial chucking.
- 5. Turn each workpiece to a cylinder whose diameter equals the piece's bottom diameter. Mark out, and finish-turn each man working from right to left. Then sand.
- **6.** Polish the men in the lathe as described in the first article in this series.



Boring the 16mm leading hole after skimming the man's bottom



Cutting a bishop's slot on a sawbench. The hole drilled into the jig was 13/4 in diameter



Screwing a workpiece onto the homemade screw chuck while keeping the point of the tailcentre located in the impression left earlier by the point of the drive centre

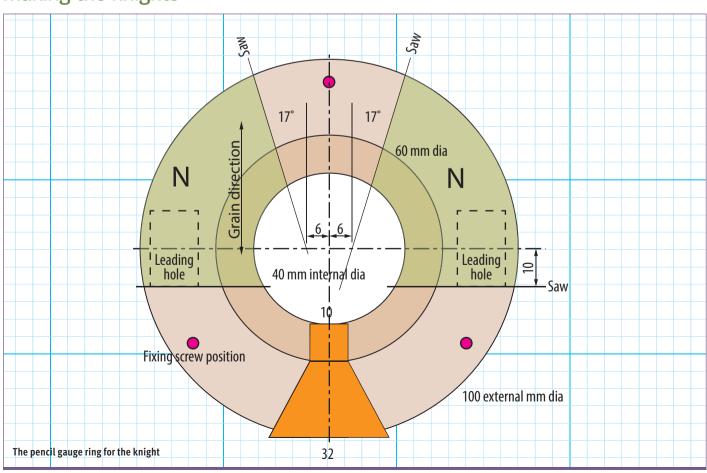


After turning the workpiece to 42mm diameter, marking out a king from a pencil gauge



Planing the lower conical section of a king

#### Making the knights



There is a particular problem with the knights: accurately and safely cutting the two men from each profiled ring. The solution involves preparing a special backing plate, and then sawing the finish-turned ring while screwed to that backing plate. The operations to produce a knight were:

- **1.** Prepare one workpiece disc slightly oversize for the two knights for each side.
- **2.** Drill a hole of the diameter appropriate for your screw chuck though each disc.
- **3.** Mount the disc on your screw chuck. Skim the disc's right-hand face flat.
- **4.** Remount the disc on the screw chuck with what was its right-hand face against the face of the screw chuck. Accurately finish-turn the disc's periphery to 100mm diameter and 32mm wide. Then finishturn the disc's right-hand face, partially turn the 40mm hole and sand the finishturned surfaces.
- **5.** Repeat steps 3 and 4 for the second workpiece disc.
- **6.** To prepare the backing plate saw out a disc of about 120mm diameter from 19mm or thicker wood or plywood plywood is preferred. Drill a hole, typically 6mm,



Left to right: a commercial screw chuck, the backing plate and a white knight's ring after having its right-hand face and periphery finishturned and sanded



Turning the right-hand face of a knight's ring with a 12mm spindle detail gouge



Making the last bandsaw cut to free the second knight

- through the plate's centre so that the plate can be mounted on your screw chuck. Mount the backing plate on your screw chuck, true its periphery and pencil on circles of 40mm and 100mm diameter.
- 7. Remove the backing plate from the screw chuck. Finish marking out on what was the plate's right-hand face. Drill and countersink the backing plate for the three screw holes.
- 8. Screw the backing plate onto the screw chuck with its marked out face to the left. Check the outside diameter of the two knight workpieces. Turn a shallow annular recess into the right-hand face of the backing disc to neatly locate the finish-turned rim of the smaller-diameter workpiece ideally, however, the diameter of both workpieces should be equal.
- 9. If necessary, remove the backing plate from the screw chuck, and screw the smaller-diameter knight workpiece with its grain in the correct orientation onto the backing plate. The three screws enable the two knights to be bandsawn free safely. The screws used should be short enough so that they won't damage the gouge's cutting



About to screw the backing plate and knight ring assemblage onto a commercial screw chuck. The knight ring-workpiece has been screwed to the backing plate using three screws. The screw's tips finish short of the finished surface



Making the second bandsaw cut through the backing disc/knight ring assemblage



Bandsawing completed. The backing plate with the two waste ring sections still screwed to it, and the two freed white knights

- edge as a workpiece's new right-hand face is finish turned.
- **10.** Screw the backing plate and workpiece assemblage onto the screw chuck.
- **11.** Finish-turn the right-hand face of the ring and complete the 40mm through hole. Sand.
- **12.** Remove the backing plate and workpiece assembly.
- **13.** Bandsaw along the marked lines on the backing plate. Only saw just past the 40mm diameter pencilled ring so that the backing plate can be used for the second workpiece.
- **14.** If necessary, remount the backing plate on the screw chuck and slightly increase the diameter of the recess to suit the diameter of the rim of the finish-turned face of the second workpiece.
- **15.** Repeat steps 9 to 13 for the second knight's workpiece.
- **16.** Sand the sawn faces of the four knights by rubbing those faces on abrasive paper or cloth supported on a flat surface.
- 17. Hold each knight in a padded vice and drill the leading hole. I used a hand brace and a 12mm diameter auger.
- **18.** Hand polish the knights.

#### Leading



Leading, here using lead shot and cross-linked PVA adhesive

To lead men you can melt sheet lead — obtainable from plumbing suppliers — in an old saucepan and pour it into the leading holes. Lead vapour is poisonous, so do this in a very well ventilated space. Also, unless the wood is fully seasoned, when you pour the lead into the hole, you'll likely get a Roman candle-like eruption of molten lead droplets. For my set I chose instead to make a mortar of epoxy or other suitable gap-filling glue and lead shot — obtainable from gunsmiths — which I pressed into the leading holes.

#### Conclusion

The cone is a set signature that offers many possibilities. As usual it's the knight which is the problem. Here I've substituted a triangular-profiled ring for the cone.



#### **Bottle Stopper Kit**

10 stoppers
2 stub bits
Project mandrel
Spacer/washer
Draw bar



#### Joyner Off-Set Jig *Deluxe* Kit



Stoppers
Box Lids
Medallions
Bowl Inserts
Hand Mirrors

nilesbottlestoppers.com

# Turn It Up A Notch... With Flexcut®

Woodcarving tools that will take your woodturning to the next level.



Wood sculptor Dave Johnson, from Gloucester, uses Flexcut tools to embellish turned platters and bowls with patterns, calligraphy and figurative relief carvings.

Flexcut's flexible blades let you make cuts with greater control than traditional carving tools, so they are perfect for precision work. The blades are made from high-carbon steel and hold their

edge extremely well. They are hand-sharpened to a razor finish and easily glide through wood with outstanding results.

See more of Dave Johnson's work online at www.djsculptor.co.uk.





Find out about Flexcut carving tools www.brimarc.com/flexcut
Find prices or your nearest stockist www.brimarc.com/stockists or call 0333 240 69 67



**ULTIMATE WOODTURNING** 

#### **COMING SOON**

Hapfo 7000-CNC Woodturning Lathe





- > 3700mm between centres
- Coping diameter 400mm
- > Centre Height 300mm
- Weight 1600kg



you can order online now

www.toolsandtimber.co.uk

hapfo PERFORMER 400-FU

hapfo

hapfo

PERFORMER 400-FU

WE ARE EASY TO FIND: 1½ miles from the M6, J40. Take the A66 towards Keswick, turn left at first roundabout, follow the Brown Signs to The Alpaca Centre.

Open 8am to 5pm daily. 10am to 5pm Saturday. Closed Sunday.

**G&S SPECIALIST TIMBER** 

The Alpaca Centre, Snuff Mill Lane, Stainton, Penrith, Cumbria CA11 0ES. Tel: 01768 891445. Fax: 01768 891443. email: info@toolsandtimber.co.uk





INCLUDING

OR OVER

PRICE CUTS & **NEW PRODUCTS** WOODWORKING MACHINES

Machine Mart OGUE

### ते <del>व</del>ा YOUR FREE NOM

**IN-STORE** ONLINE

**PHONE** 844 880 1265

#### WOODWORKING VICES

#### Record. WY7

MODEL	MOUNTING			
	(V	VIDTH/OPENII		
		/DEPTH)mm		
Clarke	Bolted	150/152/61	£13.49	£16.19
CHT152				
Stanley	Clamped	72/60/40	£16.99	£20.39
Multi Angle				
Record V75		75/50/32	£19.98	
Clarke WV7	7 Bolted	180/205/78	£24.99	£29.99

## TURBO AIR COMPRESSORS





h	obby & semi-	profess	ional	use *	V-Twin	
ı	MODEL	MOTOR	CFM	TANK	EXC.VAT	INC.VA
	Tiger 8/250	2HP	7.5	24ltr	£79.98	£95.9
ı	Tiger 7/250	2 HP	7	24ltr	£89.98	£107.9
ı	Tiger 11/250	2.5HP	9.5	24ltr	£119.98	£143.9
ı	Tiger 8/510	2HP	7.5	50ltr	£129.98	£155.9
ı	Tiger 11/510	2.5HP	9.5	50ltr	£149.98	£179.9
ı	Tiger 16/510*	3 HP	14.5	50ltr	£219.98	£263.9

#### Tiger 16/1010\* 3 HP 14.5 100ltr £269.98 £323 Clarke **⊜** BOSCH **JIGSAWS**

\*DIY #Professional

‡ was £59.98 inc	.VAI		UJS	380
MODEL		DEPTH		
	(W)	P OF CUT	EXC.	INC
		VOOD/STEE		
Clarke CJS380*	420W	55/6mm	£12.99	£15.59
Clarke CON750#	750W	80/10mm	£24.99	£29.99
Bosch PST700E*#		70/4mm		
B & D KSTR8K-GB	600W	85/5mm	£66.99	£80.39



#### 10" SLIDING Clarke COMPOUND For fast, accurate MITRE SAW

ross, bevel & mitre cutting in most hard & soft woods 1800W motor • Laser guide

£155 CMS10S2

# Clarke Mitre SAW STAND



#### Carre dovetail jig

• Simple, easy to set up & use for producing a variety of joints • Cuts work pieces with a thickness of 8-32mm • Includes a 1/2" comb emplate guide & holes for bench mounting



#### Clarke scroll saws



dust from c	utting are	ea	- 0	33101			
1		SPEED	EXC.	INC.			
MODEL	MOTOR	RPM	VAT	VAT			
CSS400B	85W	1450	£69.98	£83.98			
CSS16V	120W	400-1700	£79.98	£95.98			
CSS400C*	90W	550-1600	£99.98	E119.98			
* Includes flexible drive kit for grinding/polishing/sanding							



# MITRE SAWS 68

	1n-SN 2034 W	
	· Quality Range of Mitre saws and blades	
ı	MODEL BLADE DIA MAX CUT EXC.	INC.
I	BORE (mm) DEPTH/CROSS VAT	VAT
	Einhell 210/30 55/120mm £56.99	£68.39
	TH-MS 2112	
	Fury 3 210/25.4 60/220mm£119.98	
	Einhell 250/30 75/340mm£159.98	£191.98
	TH-SM2534	
l	Makita 260/30 95/130mm£199.98	£239.98
	LS1040	
	AND TO BE AND TARY TO	OΙ



Height adjustable stand with clamp 
 Notary tool
 1m flexible drive 
 40x accessories/consumables

#### Clarke 6" BENCH GRINDER WITH SANDING BELT For sanding/shaping wood, plastic

£59.98



& metal



speed control from 7,400-21, 600 rpm • 2100W motor • 0-60mm plunge depth

#### Clarke ROUTER TABLE CRT-1



table . Suitable for most routers (up to 155mm dia. Base plate)

#### **DUST EXTRACTOR/** Clarke CHIP COLLECTORS



# Clarke 5PCE FORSTNER BIT SET

• Contains 15, 20, 25, 30 & 35mm bits • Titanium nitride coated for improved cutting finish

## CHT365

Clarke BENCH GRINDERS & STANDS Stands come complete with bolt mountings and feet

anchor holes FROM ONLY **29:98 29:**08 **25:98 35:98** CRG8W

features 8" whetstone & 6"drystone.

ľ	# With sanding	g belt			
	MODEL	DUTY			
				XC.VAT	
ı	CBG6RP	DIY	150mm	£29.98	£35.98
ı	CBG6RZ	PR0	150mm	£39.98	£47.98
ı	CBG6RSC	HD	150mm	£49.98	£59.98
	CBG6SB#	PR0	150mm	£49.98	£59.98
	CBG6RWC	HD	150mm	£54.99	£65.99
Ų	CBG8W (wet)	HD	150/200mm	£55.99	£67.19



## Clarke CORDLESS DRILL/ DRIVERS



	* was £77.99	inc.VA	ι <mark>Τ</mark>	<b>-4</b>	1.39 INC.VAT
		VOLTS	BATTS	EXC. VAT	INC.VAT
	CCD180	18V	1	£36.99	£44.39
	CDD240	24V	1	£39.98	£47.98
	Bosch PSR18	18V	1	£54.99	£65.99
	CON18Ni*	18V	2 x Ni-Co	£59.98	£71.98
Ĺ	CON18Li	18V	2 x Li-lor	£84 99	£101 99

#### **PORTABLE** Clarké **THICKNESSER**

 Max thickness • Planing depths adjustable Powerful 1250W motor 8000rpm no-load speed

£189:98

227:98 1NC.V



CPT250

Clarite HARDWOOD
WORKBENCH
• Includes bench dogs and guide holes for
variable work positioning • 2 Heavy Duty Vices
• Large storage draw • Sunken tool trough
• LxWxH 1520x620x855mm



## Clarke 13" MINI WOOD LATHE



Ideal for enthusiasts/ obbyists with small workshops
325mm distance between centres • 20
nax. turning capacity (dia) • 0.2HP motor

#### OPEN MON-FRI 8.30-6.00 SAT 8.30-5.30, SUN 10.00-YOU TORE

BARNSLEY Pontefract Rd, Barnsley, S71 1EZ
B'HAM GREAT BARR 4 Birmingham Rd.
B'HAM HAY MILLS 1152 Coventry Rd, Hay Mills
BOLTON 1 Thynne St. BL3 6BD
BRADFORD 105-107 Manningham Lane. BD1 3BN
BRIGHTON 123 Lewes Rd, BN2 30B
BRISTOL 1-3 Church Rd, Lawrence Hill. BS5 9JJ
BUSTON UPON TRENT 12a Lichfield St. DE14 30Z
CAMBRIDGE 181-183 Histon Road, Cambridge. CB4 3HL
CARDIFF 44-46 City Rd. CF24 3DN
CARLISLE 85 London Rd. CA1 2LG
CHELTENHAM 84 Fairview Road. GL52 2EH
CHESTER 43-45 St. James Street. CH1 3EY
COUCHESTER 4 10-47 Stripton Rd. CO1 1RE
COVENTRY Bishop St. CV1 1HT
CROYDON 423-427 Brighton Rd, Sth Croydon
DARLINGTON 214 Northgate. DL1 1RB
DEAL (KENT) 182-186 High St. CT14 6BO
DERBY Derwent St. DE1 2ED
DONCASTER Wheatley Hall Road
UNDEE 24-26 Trades Lane. DD1 3ET
EDINBURGH 163-171 Piersfield Terrace

OF1400ACE

EXETER 16 Trusham Rd. EX2 80G 01392 256 744
GATESHEAD 50 Lobley Hill Rd. NE8 4YJ 0191 493 2520
GLASGOW 280 GT Western Rd. G4 9EJ 0141 332 9231
GLOUCESTER 221A Barton St. GL 1 4HY 01452 417 948
RGIMSBY ELLIS WAY, DN32 9BD 01472 354435
HULL 8-10 Holderness Rd. HU9 1EG 07482 223161
LEFORD 746-748 Eastern Ave. IG2 7HU 0208 518 4296
FSWICH Unit 1 Ipswich Trade Centre, Commercial Road 01473 221253
LEEDS 227-229 Kirkstall Rd. LS4 2AS 0113 231 0400
LEICESTER 69 Metton Rd. LE4 6PN 0116 261 0688
LINCOLN Unit 5. The Pelham Centre. LN5 8HG 01522 543 036
LIVERPOOL 80-88 London Rd. L3 5NF 0151 709 4484
LONDON OS-30-507 Lea Bridge Rd. Leyton, E10 020 8595 5684
LONDON 50-507 Lea Bridge Rd. Leyton, E10 020 8558 8284
LONDON 100 The Highway, Docklands 020 7488 2129
LUTON Unit 1, 326 Dunstable Rd, Luton LU4 8JS 01652 756 053
MAIDSTONE 57 Upper Stone St. ME15 GHE 01622 769 572
MANCHESTER ALTRINCHAM 71 Manchester Rd. Altrincham 0161 9412 666
MANCHESTER CENTRAL 209 Bury New Road M8 8DU 0161 241 1851
MANCHESTER CENTRAL 209 Bury New Road M8 8DU 0161 241 1851
MANCHESTER CENTRAL 209 Bury New Road M8 8DU 0161 241 1851
MANCHESTER DEISHAW Unit 5, Tower Mill, Ashton Old Rd 0163 262160 180 Catalogue request number above (0844 880 1265) cost 7p per I

MIDDLESBROUGH Mandale Triangle, Thornaby NORWICH 282a Heigham St. NR2 4LZ NOTTINGHAM 211 Lower Parliament St. PETERBOROUGH 417 Lincoln Rd. Millfield PETERBOROUGH 417 Lincoln Rd. Millfield
PLYMOUTH 58-84 Embankment Rd. PL4 9HY
POOLE 137-139 Bournemouth Rd. Parkstone
PORTSMOUTH 277-283 Coppor Rd. Copnor
PRESTON 53 Blackpool Rd. PR2 6BU
SHEFFIELD 453 London Rd. Heeley. S2 4HJ
SIDCUP 13 Blackfen Parade, Blackfen Rd
SOUTHAMPTON 516-518 Portswood Rd.
SOUTHAMPTON 516-518 Portswood Rd.
SOUTHEND 1139-1141 London Rd. Leigh on Sea
STOKE-ON-TRENT 382-396 Waterloo Rd. Hanley
SUNDERLAND 13-15 Ryhope Rd. Grangetown
SWANSEA 7 Samlet Rd. Llansamlet. SA7 9AG
SWINDON 21 Victoria Rd. SN1 3AW
TWICKENNAM 33-85 Heath Rd. TW1 4AW TWICKENHAM 83-85 Heath Rd. TW1 4AW
WARRINGTON Unit 3, Hawley's Trade Pk.
WIGAN 2 Harrison Street, WN5 9AU
WOLVERHAMPTON Parkfield Rd. Bilston WORCESTER 48a Upper Tything. WR1 1JZ

# FASY WAYS TO RII I-STORE

ONLINE

**MAIL ORDER** 

CLICK OLLE



#### CREATIVE WELSH WOODTURNING LTD.

Turners Tool Box.Com

WOODTURNING – WOODWORKING – WOODCARVING
TOOLS & ACCESSORIES

TURNERS TOOL BOX

DAVID MARTIN

Log On To:



Email: info@turnerstoolbox.com – Tel: 01873 831 589 – Mobile: 07931 405 131

For more information or to place your order visit <a href="www.turnerstoolbox.com">www.turnerstoolbox.com</a> Order online Open 24hrs All at the click of a button and delivered straight to your door. Or place your order over the telephone



# LEARN. CREATE. CONNECT.

Stay plugged in to the worldwide woodturning community.

A membership with the American Association of Woodturners (AAW) is much more than just a subscription to the *American Woodturner* journal. AAW is the world's leading resource for woodturning information, inspiration, and instruction. In addition to the journal, AAW members have access to publications including Woodturning FUNdamentals, Safety for Woodturners, and mentoring publications, as well as a variety of complimentary services, website tools, grant opportunities, and specialty programming. These publications and services will help you LEARN, CREATE and CONNECT, and enable you to stay plugged in to the worldwide woodturning community.



#### LEARN & CREATE WITH AAW PUBLICATIONS

#### American Woodturner

six issues annually, articles, projects, photos, techniques, tips, and news. Digital library of past issues. Searchable online index. Online videos complement selected articles. New digital App for mobile devices.

**Mentoring & More** 







#### CONNECT USING AAW ONLINE TOOLS

**AAW Connects**: Search for chapters, events, schools, more.

**AAW Forum:** Share ideas, get feedback and assistance.

**AAW Directories:** Find contact info for members, chapters, demonstrators, more.

**AAW's Woodturning Calendar:** Know about events, exhibitions, classes, symposia.

# AAAV AMERICAN ASSOCIATION OF WOODTURNERS JOIN TODAY

woodturner.org 651-484-9094 inquiries@woodturner.org

# Woodturning

# Issue **288** on sale **31 December**

# We catch up with Michael Blankenship

## **Bob Chapman**

explores using yew and makes some boxes from it

**Stuart King** turns a cottage-style money box

# **Colwin Way**

on reverse mounting bowls

**Kurt Hertzog** looks at after turning alterations



# To subscribe call 01273 488 005 or visit www.thegmcgroup.com

Editor Mark Baker
E: markb@thegmcgroup.com
Assistant Editor Briony Darnley
E: brionydarnley@thegmcgroup.com
Editorial Assistant Karen Scott
T: 01273 477374
E: karensc@thegmcgroup.com
Designer Oliver Prentice
Illustrator Mark Carr
Chief Photographer
Anthony Bailey
Advertising Sales Executive
Russell Higgins
Tel: 01273 402899

E: russellh@thegmcgroup.com
Advertisement Production
Production Controllers
Rebecca Howard & Amanda Allsopp
Tel: 01273 402807
E: 01273 402807
E: repro@thegmcgroup.com
Publisher Jonathan Grogan
Production Manager Jim Bulley
Circulation Tony Loveridge
Tel: 01273 477374
E: tonyl@thegmcgroup.com
Subscriptions Manager
Helen Chrystie
T: 01273 402 873

E: helenc@thegmcgroup.com Marketing Anne Guillot T: 01273 402871 Origination: GMC Reprographics Printer: Precision Colour Printing T: 01952 585585 Distribution: Seymour Distribution Ltd T: +44 (0) 20 7429 4000 Woodturning (ISSN 0958-9457) is published 13 times a year by the Guild of Master Craftsman Publications Ltd.

Subscription rates (including postage & packing) 12 issues: UK £47740 Europe £59.25 Rest of Word £66.36 24 issues: UK £94.80 Europe £118.50 Rest of World £132.72 US subscribers should visit www. lightningpublications.com for subscription rates in USD \$. Post your order to: The Subscription Department, GMC Publications, 166 High Street, Lewes, East Sussex BN7 1XU, England. Telephone: 01273 488005 Fax: 01273 478606 Cheques should be made payable to GMC Publications Ltd. Current subscribers will automatically receive a renewal notice (excludes direct debit) subscribers

Woodtuming will consider articles for publication, which should be sent to the Editor together with a stamped-addressed envelope for return. GMC Publications cannot accept liability for the loss or damage of unsolicited material. Views and comments expressed by individuals do not necessarily represent those of the publishers and no legal responsibility can be accepted for the result of the use by readers of information or advice of whatever kind given in this publication, either in editorial or advertisements. No part of this publication by the perpoduced, stored in a retrieval system or transmitted in any terms without the feeling of Master Craftsman Publications Ltd.







# PEN MANDREL SUPPORT

RRP £24.98+VAT

www.planetplusltd.com

Product Code: PMS1 - 1MT PMS2 - 2MT

PLANET PLUS LTD UNIT 3 SPEEDWELL CLOSE, CHANDLER'S FORD, EASTLEIGH, HAMPSHIRE SO53 4BT TEL: 023 8026 6444 FAX: 023 8026 6446 EMAIL: sales@planetplusltd.com



# www.norfolksawservices.co.uk

Visit us on-line or in-store for a comprehensive selection of woodwork machinery, power tools & consumables from all the top brands















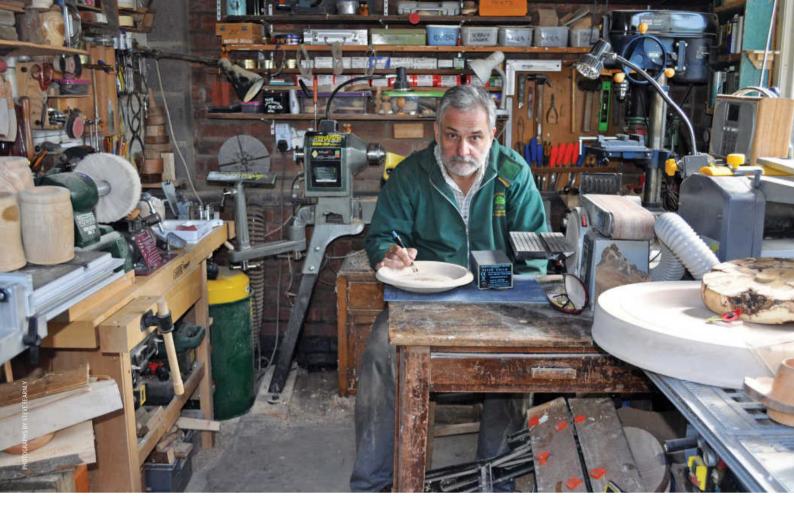


www.facebook.com/norfolksawservices



Norfolk Saw Services, Dog Lane, Horsford, Norwich NR10 3DH

Tel: 01603 898695 E-mail: sales@norfolksawservices.co.uk



# In the workshop with... Steve Fearnley

We find out about the Yorkshire-based woodturner

teve Fearnley has been woodturning for some years now, since 2009. Steve produces a variety of items ranging from household goods and ornaments to clocks and trophies. He also runs his own website; www.oldfern.co.uk.

#### How, when and why did you start turning?

I had been making trophies for a couple of years for the school I worked at and thought I could do a better job with a lathe. My dad used to turn and I have made things out of wood most of my life. I bought a small lathe for Christmas and spent the festive holiday getting nowhere, until I went to a beginners' night in January, after which I was up and running.

## What and who are the greatest influences in your work?

I owe virtually all my progress to Snainton Woodworking Supplies, near Scarborough. I was invited to beginners' nights every Wednesday – free because I bought a lathe from them – and never looked back. Graham and Sue Harker guided me through the key techniques and there isn't much that Rob Thompson doesn't know about timber and turning. Snainton Woodturning Club then enhanced everything with their monthly club nights with top class demonstrators.

## If you were to offer one sage piece of advice to someone what would it be?

The best advice I could give any 'would-be' woodturner is get some tuition and guidance, and join a club. You cannot have too much advice – you don't have to act on it all and it will be conflicting at times from different people. You just have to make up your mind about which to take.

# What music and which book are you currently into?

I enjoy live music. My wife and I have been to

the Perthshire Amber festival for the last few years. Dougie MacLean and Eddi Reader are firm favourites. Closer to home we enjoy Kate Rusby's concerts, especially the Christmas specials. We also fulfilled a lifetime ambition when we saw Leonard Cohen perform live at Leeds Arena a couple of years ago. I haven't read much recently. I like biographies – the last book I read was a biography of Leeds Rugby League great John Holmes.

#### What is your silliest mistake?

I started stripping down my Nova lathe because it suddenly lost power. I was close to taking off the headstock to return it to my supplier, but then common-sense prevailed – it always pays to start with the most obvious problem, such as the 3-pin plug working loose in the extension socket.

#### What has been your greatest challenge?

The most challenging, but also most



interesting piece I have turned was a full chess set and board, based on a 125mm-high king and 50mm-wide chessboard squares. As with most of my work, it was a commission. I experimented with different wood before settling on rosewood (Dalbergia latifolia) and box (Cornus florida) and particularly enjoyed the challenge of carving four knights on top of their turned bases, not having done much carving before. Making 16 identical pawns, four rooks and bishops, and two kings and queens required some thinking about design and technique. I settled on using a beading tool to create two measured beads on each piece, one at the bottom and one near the top. All that was needed then was to shape the space between them and turn the top.

## Name one thing on your turning 'to do' list...

As a maths teacher I came across a mathematical solid known as a Klein bottle. This is a solid 'bottle', but it only has one side; its inside is also its outside and it has no boundaries. I am sure I can turn one, probably involving segmented turning techniques... one day.

# Tell us about the piece you are currently working on...

I usually work on a handful of pieces at a time. One currently on the go is a 610mm diameter sycamore (*Acer pseudoplatanus*) memorial plaque. The disc is turned, it now needs pyrographing with the names of those students and staff from where I used to teach – Malton School – who gave their lives in both World Wars.

## What is the one piece of equipment or tool you would not be without and why?

Apart from the obvious lathe, gouges and chisels, I would not be without my Peter Child pyrography kit. When I first started turning trophies, getting lettering on them involved either fixing metal plates, or using computer-generated vinyl transfer lettering. Both of these required work by another person, so the piece was not entirely my creation. Nowadays I transfer computer generated mirror-image designs from an ordinary inkjet printout rubbed on to the wood, then pyrograph over this outline.

# If you could change one thing what would it be and why?

I am not sure about changing one thing. I like to think that things happen as they happen, and they are as they are. It doesn't pay to be thinking what might have been, if only something else had happened.

#### What is your favourite type of turning?

I am happy doing all types of turning, whatever is required by a particular request. Left to my own devices with no requirement

Large oak (Quercus robur)
burr bowl – pitted and cracked, but full of character

Large oak (Quercus robur)

Creative writting

Cricket trophy – ash (Fraxinus excelsior) base and wickets, with a ball made from padauk for its reddish colour. Army badge pyrographed and painted. Made for the Army Training Centre in Pirbright, Surrey

Pirbright, Surrey

to sell a piece or fulfil a commission I would probably mainly turn bowls – I love the

#### If you had one wish, what would it be?

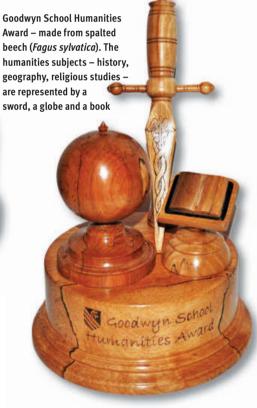
endless variety of such a basic shape and

in shape can have.

the subtle effects that very minor changes

Wishes are for magical things, aren't they? I wish woodturning and sanding didn't produce dust.

English trophy – a memorial trophy made to commemorate a former Head of English at Malton School



# If you could have one piece of equipment, what would it be and why?

I think I might like a vacuum chuck, but never having used one I don't know if one would be a good investment. Finding ways of holding pieces while turning is all part of the fun, but a vacuum chuck might allow designs that would otherwise not be possible •



Steve's workshop is just 3.5 metres long by 2.5 metres wide. An exercise in compact working and storage



#### LIKES

- Burrs, especially oak
- Demonstrators who talk about what they are doing, give lots of basic detail – such as lathe speed, gouge make and size, type of timber – and don't take anything for granted in terms of what they should or should not tell their audience
- Looking at other people's woodturning
- Working with a customer on a unique design to suit their needs
- Recovering from an error on a piece, sometimes improving on the original intention

#### **DISLIKES**

- Gluing pieces together. Clamping awkward shapes and dealing with glue that might seep out are not in my fun to-do list
- People who email to request a piece, or ideas for a piece, but then never follow up.
   Even a 'sorry, but I have sourced the work elsewhere' would be better than nothing
- Manufacturers who sell items in kits or 'packages', but not as individual components. Half a dozen chucks are useful, but not half a dozen chuck keys, or half a dozen 50mm jaws
- · Coming up with a price for work
- The noise that dust extractors and filters make
- Throwing anything away. I use any pieces
  of wood that are viable, if not they are
  put on the wood burner as kindling or
  fuel. Shavings and sawdust are all put on
  the compost heap and mixed with grass
  clippings. The downside is finding places
  to keep everything until a use occurs!

#### **HANDY HINTS**

- Photograph every piece you make. Once it is sold or given away, you cannot show it to someone, but a photo allows at least an idea of what you make to be shown to someone else
- Inkjet printing will transfer from paper on to wood with light rubbing on the reverse of the paper. As desktop publisher packages or word processors usually have WordArt options to fit lettering to shapes and rotate and flip options to create mirror images, this allows lettering to be designed on a computer before transferring to wood for pyrography
- It pays to keep your workshop tidy;
   a place for everything and everything in its place. If only I could follow this advice!

Contact: Steve Fearnley
Email: oldfern@btinternet.com
Web: www.oldfern.co.uk



# **Chrome Bottle Opener**

These heavy-duty bottle openers are a handy accessory for any kitchen, bar, or barbecue, and will be greatly appreciated by any beer lover. They are fun and easy-to-make! **РКВОТТСН** 

Quantity 1-4 5-9 10-24 25+ Price \$5.25 \$4.75 \$4.25 \$3.95





NEW TO WOODTURNINGZ! NEW TO We duty Bottle Openers

SimStone pen blanks and heavy-duty Bottle Openers

## SimStone Pen Blanks

SimStone offers exciting new marble stone patterns not available in any of our other products! Shown here with a "Red Agate" blank on our Orion pen kit. All blanks are .7" square x 5.25" long.

5-9 Quantity 1-4 10-24 25+ Price \$12.50 \$11.50 \$10.75 \$9.50





PBSS03 - LAPIS



PBSS05- PINK MARBLE



PBSS06 - TURQUOISE





View our SimStone pen blanks and Bottle Opener at: http://wt.gs/WT17

We Ship World-Wide

888.PEN KITS 888.736.5487



**Andrew Potocnik** completes another turner's work to preserve a pedestal table



#### **ANDREW POTOCNIK**



Andrew sees inspiration around him every day. He 'arrived' on the Australian woodworking scene in 1983, and since then, his work has developed into areas of sculpture, furniture making and the odd bit of cabinetwork.

andrewpotocnik@telstra.com

friend recently called in with a box of items his late father made while in retirement when he developed an interest in woodworking and became intrigued with the combination of turning and furniture making. Unfortunately after he passed away he left behind several partially completed projects, hence my challenge was to complete some of them, which will eventually be passed on to grandchildren as heirlooms with which they can remember their grandfather. My task was to finish off components of a small pedestal table that combined turning and cabinet skills.

This job presented me with a rather delicate juggling act. I needed to work with a design aesthetic outside my own, yet I felt components needed to be 'tweaked' to make them blend and form a table that was balanced once completed, without overpowering the original maker's personal style. I first needed approval from my friend to alter the design but not override his father's touch, after which I was off and ready to work, but constantly aware of not overstepping my limits and imposing personal tastes on those of the deceased and the heirloom significance of his work.

As you can imagine, the most difficult aspect of reworking an almost completed

item lies in how to mount it for further modification. Lateral thinking comes in handy here, as does a bit of experience, so I began with the top and worked my way down to the three feet... gently.







The original stem







The original top

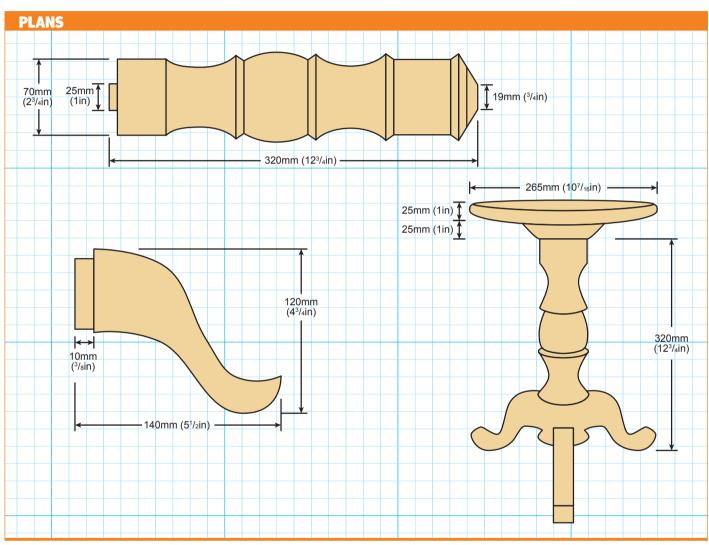


The underside of the original top

# EQUIPMENT USED CA glue Abrasives 25mm chisel

25mm chisel Polyurethane finish Epoxy resin

PPE: facemask, respirator/dust mask and extraction



Trist of all, there were a number of cracks that I had to fill with CA glue, before deciding how I would mount the top. I also needed to figure out the most accurate method of finding its centre, and waste as little material as possible in trimming it down. There was a 25mm diameter hole already drilled to suit a tenon of the same size on the existing stem

2 The solution was to turn a plug identical to the hole, create a centre point before parting it free and inserting it into the hole

















A carrier fitted to a faceplate was mounted on the lathe, ready for the top to be held in place

The tailstock was brought into position with the live centre fitting into the middle of the plug. Pressure from the tailstock was sufficient to hold the top securely centred in preparation for turning. Now for the first stage of turning

5 The underneath and profile were reshaped and sanded smooth, replicating profiles of the existing design. This was simply a case of 'cleaning up' what was already there and refining details – getting rid of tear-out, etc.

Ready for the top to be reversed, a screw was driven into the plug so it could be removed with the aid of pliers. The force of the tailstock had actually driven the plug into a much tighter fit than I'd originally expected... another example of drawing on one's repertoire of problem-solving skills needed in situations such as this

To remount the top so the upper surface could be cleaned up, I fitted a scrap piece of wood into a chuck and turned a 25mm spigot, in essence making another carrier to replace the tenon at the top of the table's pedestal. This is the key skill needed in this type of situation – figuring out how to remount almost completed components so they can be finished off

With a support block held in place with the tailstock, the table top was secured so its upper surface could be flattened...

...and sanded smooth. Checked with a steel rule for flatness, the final surface would be hand sanded with a sanding block once removed from the lathe

Remounting the pedestal was easy at one end, but at the other I needed to establish the centre of a round stub, ready to be held in place at the tailstock end of my lathe, so I used my finger gauge – two fingers and a thumb gripping a pen, sliding fingers along the perimeter of the stub several times until marked lines gave me an indication of where I could estimate the centre of marks and hence the centre of the pedestal

- 1. Although this table is only 400mm high you could easily enlarge it to suit your needs. I feel the proportions are quite pleasing aesthetically
- 2. When chopping mortises, use a broad chisel to pare the sides. I used a 25mm chisel. A proper mortising chisel is needed to clear the base of the joint



1 To grip the tenon was a much easier task. I mounted a scrap block of timber in a chuck and cut a recess of 25mm diameter, deep enough to accept the tenon already cut on the existing pedestal so once fitted between centres, friction would take over and allow the pedestal to be reworked

12 The existing pedestal was now in place and ready for refining

13 The reworked pedestal with added details and refinements, keeping in mind my concern to not override the aesthetics of the original maker

14 Sanded to completion, it was divided into three sections with the aid of the lathe's indexing head so mortises could be created to accept the three feet

15 The feet had already been cut but were in need of refinement, tenons needed trimming on a bandsaw and curves enhanced

16 Unfortunately each of the tenons was of a different width but I opted to leave them this way as the thinnest was too thin for my liking and I was concerned about how strong the joint would eventually be

17 Profiles were further refined on an oscillating spindle sander. Edges were eased and then rounded during the hand sanding stage. It was time-consuming but worth it as you can see from the improvements in the completed shape

18 Mortises were drilled on a pedestal drill to remove as much waste material as possible. Note that a supporting 'V' block was used to allow alignment of the wood and to prevent it from rolling while drilling

















- **3.** Be prepared to think laterally on a project like this one, you'll need to come up with simple ways to rechuck near completed forms
- **4.** Be prepared to go outside your comfort zone when taking on another person's tastes and aesthetics. I've certainly learnt a lesson from this project and am tempted to make my own pedestal table
- **5.** Vernier callipers are essential in determining diameters of tenons, depths of holes and thicknesses of tenons. For many years I've relied on the most simple form of this tool, but now I also use a digital set













19 The pedestal was returned to the lathe so the remaining material could be cleared from the mortises to accept each foot

The shoulders of the tenons were undercut to fit snugly against the curved surface of the pedestal. I used a 25mm-wide chisel to keep the shoulders as straight as possible. Note the use of leather padding to protect each foot as I used an engineer's vice that has knurled steel jaws, which would otherwise have left indentations on the wood

The shoulders of the tenons were undercut to fit snugly against the curved surface of the pedestal

2 1 A finish was applied to all components prior to assembly. I like to use a wipe-on wipe-off polyurethane finish; however, my friend's eventual reaction indicated he may have preferred a thick full gloss finish

2 With the pedestal mounted between centres, each foot was glued into place using two-part epoxy resin. I glued them one at a time to ensure a neat fit, allowing gravity to hold them securely in place as the glue cured, rather than complicating the process with clamps placed at all sorts of odd angles

 $23\,\text{With}$  all the feet glued, only the top needed to be fitted to complete the job

Throughout this project the original maker's style was at the forefront of my mind so I didn't want to overpower it with my own taste, just enhance what was already there. It's a difficult balance to achieve, but fortunately my friend was happy with the finished product. I too was pleased with it, so it could be called a win-win situation •

- **6.** Choose adhesives according to need. To glue the top of this table I used a thick PVA glue, but for the legs I opted for epoxy resin because of its clarity and gap filling properties
- **7.** Finishes are a personal choice. I like a wipe-on wipe-off polyurethane finish that allows the wood to stand out. Some prefer a high gloss finish, while others prefer a French polish, it really comes down to how much time you're willing to invest into the finishing process... and the look you're after



Sockist
US Stockist
US Stockis

Stains

**Thinners** 

**Applicators** 

Superglues

**Buffing Systems** 

Acrylic Blanks

...and much more

Used by woodturners of all abilities throughout the UK and the world, the Chestnut Products range of top quality finishes gives outstanding results every time; whatever you are making and whatever your preferred finishing system there is bound to be something in our range to meet your needs.

See your local stockist for more information or for a catalogue/price list contact us at:

Chestnut Products
PO Box 260, Stowmarket,
IP14 9BX

Tel: 01473 890 118 Fax: 01473 206 522

www.chestnutproducts.co.uk mailroom@chestnutproducts.co.uk

Stockist enquiries welcome



The ToolPost · www.toolpost.co.uk · phone (UK) 01235 511101

Box with lid and finial top

**Philip Greenwood** turns a decorative lidded box with a finial top

his month's article includes a simple box that could be a project in itself, however I've decided to make a finial to fit on the lid. This makes the box more of a show piece due to the length of the finial, which could be broken if used every day. This is something you have to take into account when you design or make an item. I discuss a client's requirements and then make sure that the finished design is fit for the purpose that it will be used for. This can be difficult but I would not want to supply an item that is not suitable for purpose.

This box is made from three pieces of timber - matching timber for the box, and a contrasting timber for the finial. I prefer a light timber for the box with a dark timber for the finial. The timber for the finial needs to be close and straight grain for maximum strength; grain running at an angle would be more vulnerable to break if rough handled, even if it made it through the turning process. The turning of the box is straightforward so long as you plan ahead, think carefully about how you are going to hold the parts and how you will finish off any chucking points used to finish the item off. Go through each process in your mind or on paper and make sure you will not run into problems. If you do foresee problems, change the process to an alternative method – better to do this than to waste a nice piece of timber due to not thinking the process through prior to turning the item. The box is finished with carnauba wax, which gives a more durable finish then beeswax.

#### PHILIP GREENWOOD



Philip has been turning wood since 1980 and started turning professionally in 1986. He was accepted onto the Register of Professional Turners (RPT) in 2006. He is also a member of the AWGB.

He can be seen working in his workshop in North Yorkshire and has demonstrated at the woodworking show at Harrogate since 2008. He runs courses at his workshop.

philip@woodturningintoart.co.uk www.woodturningintoart.co.uk



#### 1. HOW TO FIT A LID

My lids are fitted so that if you lift the box by the lid the bottom part will hold for a few seconds before it drops off. I plan the job so I cut the recess first; this needs to be parallel to make fitting the lid easier, be careful when sanding not to round over the front edge. When it comes to turning the spigot, I only turn a 2mm step wide on the front edge when the fit is close and I regularly stop the lathe to test the fit. Take very small cuts, don't take too much off at once or the fit will be slack. Once it fits on the small step, I turn the full width. If I make a mistake when turning the small step I only waste 2mm not the full width. Again, sand carefully with a fine grade or the fit will be loose.



#### 2. JOINTS ON BOXES

This sounds so simple and it can be by following a few simple rules when fitting a lid. The most common question is what sort of fit, tight or loose. It the fit is so tight that it is hard to separate the top and bottom, it will be impractical for everyday use. I tend to place the spigot on the bottom part and the recess on the lid, because if this is used and you place contents in the bottom part that has the recess, small items could become broken when the spigot slides into the recess. This is my preference. The grain on the joint line rarely lines up due to the timber that has been used for the joint and parting cut. I chamfer both edges so the mismatch grain is not so noticeable. This is a three-joint design that can be used on boxes.



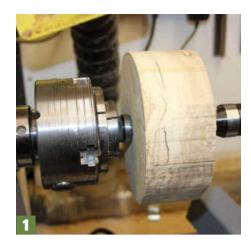
#### **PLANS AND EQUIPMENT EQUIPMENT USED Tools required Timber requirements** Beech (Fagus sylvatica) for box 10mm bowl gouge 25mm French curve scraper 140 x 60mm 3mm parting tool Blackwood (Dalbergia melanoxylon) 20mm skew for finial 110 x 20mm sq 10mm spindle gouge with a fingernail profile 15mm (19/32in) 4mm Ø <u>85mm</u> (3<sup>1</sup>/<sub>4</sub>in) (5/32in) 18mm Ø (23/32in) 15mm (19/<sub>32</sub>in) 25mm (1in) 120mm (4<sup>3</sup>/<sub>4</sub>in) 135mm (5<sup>3</sup>/<sub>8</sub>in) 25mm (1in) 45mm (1<sup>3</sup>/<sub>4</sub>in) 135mm (5<sup>3</sup>/<sub>8</sub>in)

#### 3. HOLDING SMALL PARTS

How do I hold small pieces of timber when I need to finish the end at the tailstock end without tailstock support? Well I have several sizes of chuck jaws so this is not a problem now, but what if you only have the original set that came with the chuck? Let's say the timber is only 20mm in diameter, I will turn a spigot on one end around 20mm long, and makw the diameter the

maximum that I can achieve. Then place a piece of scrap timber in the chuck then drill or turn a hole in this to the diameter of the spigot on the small piece of timber. Now glue this in to the hole and let the glue set, then you can turn the small piece without tailstock support.



















This is a way to hold a blank if you don't want to have a screw or screw holes in your blank. I am holding this between centres; I have a steb centre held in the chuck and a revolving steb in the tailstock

Turn the waste away with the bowl gouge.
Once most of this is removed, use the parting tool and skew chisel to cut the dovetail.
Once completed you can turn the blank around to cut the other side. It will line up on the centre points of the steb centres

Place in the chuck and start to part down the centre with the parting tool to create the joint spigot, about two parting tool widths. Now start to part down at the side of the spigot, make a small clearance cut to stop the tool becoming jammed. Once you have parted halfway through, stop the lathe. Now use a small hand saw to finish separating the two halves. If you continued with the parting tool so deep the tool would become more uncontrollable to use

Part in where the base lip will fit, this is around 5mm deep. Now start to remove the waste for inside the top part with a bowl gouge, leaving some extra in the centre. Try for an even curve on the inside

As you can see, a lot of the waste has been removed now. Shape the centre part, this will be a feature and give a little more depth for the hole that will be drilled in the top for the finial

Use a round or French curve scraper to finish the inside; remember to use scrapers in a trailing mode, making sure that the handle is slightly higher than the tool tip. This will avoid a catch and give a better finish to reduce sanding later

Use the skew to finish the recess where the spigot or lip of the base will fit into, and also to add detail to the centre part as well. Hold the skew flat on the toolrest and in a horizontal mode to stop this catching. Now sand and seal the inside of the base to a finish standard

Take the top out of the chuck and hold the base in the chuck. Start to remove the waste from the centre with the bowl gouge. Don't forget to leave the spigot on the edge. This again is a gentle curve

- **1.** Always use a dust mask when working with MDF and typically timbers
- Your tools will blunt more quickly with hard dense timber, so remember to sharpen your tools more often

Now we need to cut the spigot to size so the lid will fit, this needs to be a tight fit to enable the lid to be finished. See panel 1 for how I fit lids. Don't be afraid to keep stopping the lathe and trying the fit

Once it's fitted tightly to the base, the lid is ready for shaping. The tailstock is in place to give more security while the main turning is completed. Start shaping the lid curve with the bowl gouge working from the centre to the outside. The centre part will be completed once the tailstock is removed

After removing the tailstock you can finish the top. Take light cuts only, remember you are holding on a friction fit. Once you have the shape use a scraper to refine the surface, this should leave a surface with no lumps or bumps. Place a little step in the centre for detail

12 I am using a Jacobs chuck in the tailstock with an 8mm drill bit to drill a hole for the finial. Drill this hole 5mm deep, place a piece of tape around the drill bit to give a depth stop if needed. If you go too deep you will drill through the lid. Sand and seal the lid

Remove the lid so you can finish the inside of the base. Look for a smooth curve from the rim into the centre of the base. Once you have completed this with the bowl gouge, move to the scraper to finish off. As before sand and seal the inside of the base

Mount a piece of scrap MDF in the chuck, in this case it is held with a screw chuck. Cut a recess that the base rim will fit into, this needs to be a tight fit. Do wear dust protection when turning MDF products

15 Hold the base in the MDF. Use the tailstock for additional support. Start to shape the outside of the base, turn down the MDF backing plate to give more room to finish the joint area. Look for a nice curve on the underside of the base; leave the spigot for the foot

16 In this photo you can see the shaving coming off the bowl gouge just below the tip of the tool. This gives a shear cut to give a better surface finish

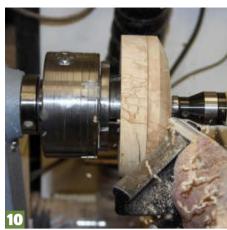
- 3. Always wear safety glasses or a face shield. This is so important when using superglue, the surface may be dry, but when you turn the lathe on it may spray some your way if you turn the top surface away
- 4. Don't part a long way into a grove, the forces can catch you out due to tool overhang. Be safe – stop the lathe and saw through













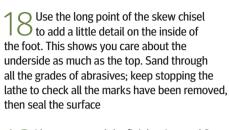




the scraper if needed







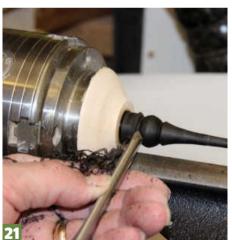
Remove the tailstock to give you access to the foot area. Recess the foot area to give you a rim for the box to stand. Don't go too deep or you will go through the base. Once you have finished with the gouge use





1 P I have prepared the finial as in panel 3. Use tailstock support at first to turn up and start the shaping on the end of the finial. You can use a piece of white card behind the work to show the profile more. Take small cuts with the spindle gouge; remember that the end 3mm will be removed to remove the hole from the revolving centre

Remove the tailstock to finish the end of the finial. Once the end is completed move to the stem, take this down in stages using small cuts as this will help stop vibrations when turning small diameters that are long. Don't go back to the very end or the finial may break



5. Exotic timbers are fine grained so will show scratches more than an open grain timber. This means you will need to sand to a higher grade abrasive

**HANDY HINTS** 

6. Don't skip abrasive grades, go through each one. It will be quicker and will give you a better finish

2 1 Once you have completed the stem you can now turn the bead at the end that will fit against the lid. Make sure you have bevel contact with the spindle gouge; you don't want to make a mistake now. Sand this to a fine finish – you may need to go up to 1,200 grade abrasive to give you a good surface – then seal the finial

2 Turn the spigot to match the hole in the top of the lid, use callipers to check this measurement. Now part the finial from the waste in the chuck. I use a three-part mop system to polish all the parts prior to gluing the finial in the top of the lid

23 The finished box should look something like this •





# & Bates The Woodturning People

Mail Order Shop

Upper Farm, Church Hill, Sutton, Dover, Kent. CT15 5DF Tel: 01304 366 360

> www.stilesandbates.co.uk sales@stilesandbates.co.uk





High quality oil-wax finish - especially developed for professional users!

- > Extremely tough and hardwearing
- > Very water and dirt resistant
- > Suitable for children's toys (EN 71.3)
- > Microporous, breathable finish, which does not crack, peel, flake or blister



Call or visit website for stockists.

+44 (0)1296 481 220 www.osmouk.com





#### **HOW TO MAKE THIS** WINDSOR SIDE CHAIR

by Peter E Judge

£15.00 plus p&p.



the woodturning chapters, the beautifully shaped legs, stretchers and upper chair spindles can be created easily using the step by step guide for beginners.

#### Critique of the book from Mr R A of Florida

£15.00

"Without doubt, it is the most detailed and comprehensive Windsor chair construction book on the market today. Finding detailed instructions on this subject has been difficult. I have collected every book and article I could find. Your book beats them all; no contest."

Order through PayPal on the website, or please contact Peter by calling 0121 705 2196 or email: peterejudge@gmail.com or write to Peter E Judge, 21 Somerby Drive, Solihull, West Midlands B91 3YY

Delivery to Europe £15.00 plus £14.00 p&p • America £15.00 plus £22.50 p&p Australia £15.00 plus £24.50 p&p ■ Canada £15.00 plus £22.50 p&p



# Kit & Tools

# A mixture of press releases showing the latest tools and products on the market

All prices are correct at time of going to press. Products from USA & overseas to UK are subject to shipping & taxes

#### **BAROQUE ART GILDERS PASTE**

his professional grade gilding paste from Craft Supplies USA lets you create brilliant gilded finishes and coloured effects for added beauty and contrast on woodturnings, carvings and other woodwork. It is wax-based and highly concentrated for a long-lasting, deep, rich look that is easy to create. Unlike other gilding pastes available, real metallic pigments are used in these gilding pastes so you create an authentic gilded finish. To use, apply the gilding paste on or off the lathe using a brush, sponge or cloth. It can also be thinned with paint thinner for use as a stain, wash or spray. Dry to the touch in about 60 minutes, you can apply a top coat such as lacquer, varnish, shellac or urethane finish. A little goes a long way: just 42ml will cover up to 30sq.ft of surface area. Available in Antique Gold, Black, Copper, Patina, Silver, Verdigris, White, Inca Gold, Iris Blue, Bronze, Canary Yellow, German Silver, Gold and Tulip Red.

**Contact:** Craft Supplies USA **Tel:** (001) 800 551 8876 **Web:** www.woodturnerscatalog.com



#### **PRECISION PRO LATHE**

he new Precision Pro lathe has been specially designed for pen and small project turning and is capable of turning items on a commercial scale. Although compact, it is made almost entirely from cast iron with weight and vibration absorbing qualities that only add to the turning experience.

The main feature for pen turning is the ER20 collet chuck fitted to the spindle nose. This is an extremely accurate method of work or tool holding, the clamping being concentric every time. Axminster

has designed and included a unique pen mandrel for this lathe which creates grip onto the pen blank without exerting compression force onto the mandrel spindle, allowing it to run freely. The mandrel is held between the collet chuck and a special hollow tailstock drive centre, the bore of which closely fits the mandrel spindle allowing no play, with the tailstock barrel being wound out to create grip onto the pen blank. The mandrel can hold one or two pen blanks at a time, saving time if a bulk batch needs to be produced.



#### FIREWRITER FROM ANTEX



ecorate wood; leather or other materials through the careful application of heat with this precision tool. If you are serious about pyrography, this powerful new tool from Antex is easy to use with multiple heat settings, quickly rising up to 650°C. Designers can use the various temperatures to create different shades from very light, to a much deeper burn or heavier in fills.

FireWriter is ergonomically designed for comfort over long periods with a slim handle and easy to change tips. It comes with a writing tip and 5 nickel chrome wires of different thickness to make your own tips. Accessories are also available including pens with different tips, packs of specialist tips and, a separate splitter means you can switch between two pens quickly.

All kinds of designs are possible, with a little creativity you can achieve wood burning, acetate stencil cutting, leather crafting, heat stamping, pattern transfer, personalising items, hot knife cutting and soldering using different tips.

Contact: Antex
Tel: 01822 613565
Web: www.antexcraft.com

# CHARNWOOD PEN BLANKS

harnwood have recently introduced a new range of pen turning products to their range. The range includes 20 colourful acrylic blanks that are 19mm diameter x 130mm long, round already, they cut down on turning time and you don't get any chippings coming off. There are also two cammo acrylic banks and 12 coloured wood blanks that are 20 x 20 x 130mm.

The pen collection starts with the standard 7mm slimline twist pens available in gold, gun metal, chrome, copper and black chrome with matching click pencils available in the same colours.

For the more adventurous there are chunky Cigar pens in gold and black, gold and gun metal, chrome and black and gun metal and black, with Cigar pencils available in gold and black, and chrome and black. Also in the range are the popular Sierra pens available in gold and black, gold and gun metal, chrome and gun metal with matching pencils available in gold and gun metal, and chrome and gun metal.

A couple of mini key chain pens in gun metal and chrome and two Christmas tree decorations finish the range in gold and chrome. For more details or to find your nearest stockist visit www.charnwood.net.

Contact: Charnwood
Tel: 01530 516 926 Web: www.charnwood.net



#### **HONEYWELL BIONIC FACESHIELD**

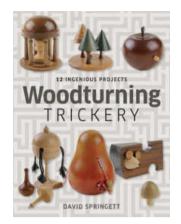
urners Retreat claim that the Bionic Faceshield is a revolutionary face shield. Taking design influences from the latest cutting edge welding shields, it offers a high level of protection that is tough when it needs to be, yet lightweight and well balanced for all day comfort with a good all-round visibility. The Bionic Faceshield is highly adjustable, has an easily replaceable visor, offers a comfortable fit when used with respirators, and with multi-adjustable positions it makes the Bionic Faceshield the one woodworkers want to wear.

Contact: Turners Retreat
Tel: 01302 744344
Web: www.turners-retreat.co.uk

FROM £29.95



# Book offers



#### **WOODTURNING TRICKERY**

earn the secrets to a collection of puzzling projects, designed to mystify and intrigue. There are 12 seemingly impossible woodturned puzzles to make – all with incredibly simple solutions, once you know how. Using old techniques in a new and fascinating way, David Springett shows how to create these tactile and entertaining works of art. It has clear step-by-step instructions, photographs and illustrations to follow, plus a wealth of information and guidance on tools, materials and techniques.

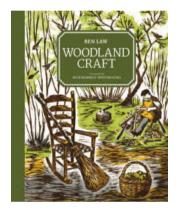
**ISBN:** 9781861087386 **RRP** £16.99, offer price £11.89 plus p&p To order please call 01273 488005 or go to www.thegmcgroup.com and quote code: R4954 **Closing date:** 3 March, 2016

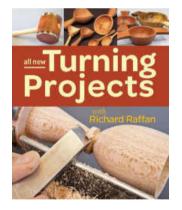
Please note: p&p is £2.95 for the first item and £1.95 for each additional item

#### **WOODLAND CRAFT**

Accompany woodsman Ben Law as he celebrates the amazing diversity of craft products made from materials sourced directly from the woods. Including brooms, rakes, pegs, spoons, chairs, baskets, fencing, yurts and even a caravan. The items are hewn from freshly cut green wood, shaped by hand and infused with a simple, rustic beauty. Detailed instructions and advice are given for each craft, along with essential knowledge about tools and devices. With fascinating information on the history, language and traditions of the crafts, coppice management and tree species, this book teaches about all aspects of the low-impact woodland way of life.

**ISBN:** 9781861089366 **RRP** £25.00, offer price £17.50 plus p&p
To order please call 01273 488005 or go to www.thegmcgroup.com and quote code: R4955 **Closing date:** 3 March, 2016
Please note: p&p is £2.95 for the first item and £1.95 for each additional item





#### ALL NEW TURNING PROJECTS WITH RICHARD RAFFAN

Thousands of novice turners have learned to turn with Richard Raffan because he can explain the complex and sometimes confusing steps in turning in a clear and understandable way. This book will continue this long tradition with a collection of appealing new woodturning projects – candlesticks, a lamp and shade, sets of plates and bowls, even a turned duck call. The projects range from simple to complex, and Raffan provides complete instructions with step-by-step photos and drawings. These projects will lead the reader through a skill-building course in woodturning.

**ISBN:** 9781627107921 **RRP** £17.99, offer price £12.59 plus p&p To order please call 01273 488005 or go to www.thegmcgroup.com and quote code: R4956 **Closing date:** 3 March, 2016

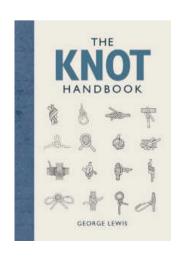
Please note: p&p is £2.95 for the first item and £1.95 for each additional item

#### THE KNOT HANDBOOK

This book shows you how to tie 50 knots. Some have been chosen for their fame, some for their beauty and some because they are knots that everyone should know how to tie. On every great theme, there are always possible variations, and, as the text makes clear, from time to time people come up with new effective methods of tying. Many of the knots featured are strongly associated with sailing, but even the saltiest of them have extensive applications on land. Adhesive tape and Velcro have their uses, but they have not rendered knots redundant; no technological advance ever will.

**ISBN:** 9781861089977 **RRP** £9.99, offer price £7.00 plus p&p To order please call 01273 488005 or go to www.thegmcgroup.com and quote code: R4957 **Closing date:** 3 March, 2016

Please note: p&p is £2.95 for the first item and £1.95 for each additional item







For more information please contact sales@gpsagencies.co.uk +44 (0) 1730 233366

www.gpsagencies.co.uk

Unit 5 Parkers Trade Park, Bedford Road, Petersfield, Hampshire GU32 3QN

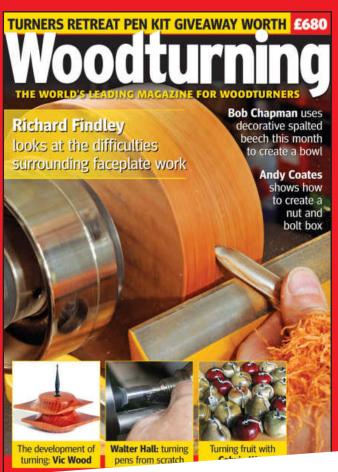


#### **Treatex Hardwax Oil**

protects and enhances the appearance of all types of internal wood surfaces. Treatex Hardwax Oil is manufactured on a base of natural sustainable raw materials: jojoba oil, linseed oil, sunflower oil, beeswax, candelilla wax and carnauba wax.

- Brings out the timber grain
- Adds warmth to wood
- Easy to apply
- Quick drying
- No sanding required between coats
- Low odour
- Resistant to water, wine, beer, coffee, tea and fizzy drinks
- Withstands high temperatures
- Very durable
- Easy to clean and maintain
- Spot repairable
- Suitable for flower vases
- Safe for use on children's toys

tel: 01844 260416 www.treatex.co.uk









# SAVE<sub>TO</sub>30% WHEN YOU SUBSCRIBE

**FREE DELIVERY** 

projects technical kit&tools features profile community turning featured artist reviews tests workshop events&news

**DIRECT TO YOUR** DOOR

You pay less than £3 an issue!

#### **3 EASY WAYS TO SUBSCRIBE**

Please quote order code A4665



www.thegmcgroup.com



Payment methods (please tick and fill in chosen option)

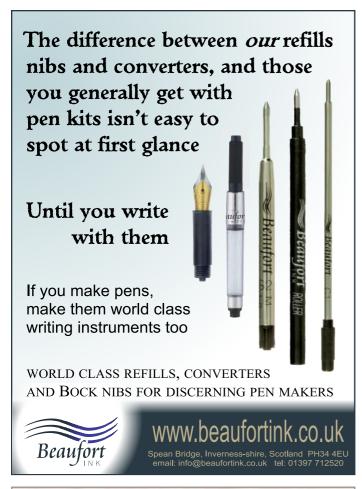
FREEPOST RTHA-TGLU-CTSK, GMC Publications Ltd, 166 High Street, Lewes, BN7 1XU (please affix a stamp if posting from overseas)

YES! I would like to subscribe to Woodturning

Subscriber details						
Title	Initial	Surname				
Address						
Postcode		С	Country			
Telephone			Email			
Subscrip	tion opti	ons (please	e tick the appropriate price)			
Pay by cheque/card	12 issu	ies SAVE 10%	24 issues <b>SAVE 20</b> %			
UK	£	42.66	£75.84			
Europe	£	53.33	£94.80			
Rest of World	£	59.72	£106.18			
Pay by Direct Debit (	UK only) SAVE 3	0%				
UK only	£	16.59 every 6 issues	£33.18 every 12 issues			

UK only	£16.59 every 6 issues	£3	3.18 every 12 issues
The efficiency and security of the S	Scheme is monitored and protecte Publications will ensure that you a ned of future offers, please tick th	ed by you are kept is box	ilding Societies that take part in the Direct Debit Scheme. ur own Bank or Building Society. Please see your receipt for up to date on other products which will be of interest to you. e overseas

I enclose	a cheque made payable to	GMC Publications Ltd, or	Please debit my credit/o	debit card	
Card No.					
Start date		Expires	Security c	ode	
Signature			Date		
Direct D	ebit	Instructions to	your Banks or Buildin	g Society DIRECT	
Name of account holder		Originator's identification number  Reference number (office use only)			
Bank or Building Society account no.			Reference number (office L	use only)	
Bank or Building Society			Instruction to your Bank or Building Society: Please pay GMC Publications Ltd Direct Debits from the account		
Name and full postal address of your Bank or Building Society		detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this Instruction may remain with GMC Publications Ltd and, if so, details will be passed			
Name		electronically to my Bank/Building Society.  Banks and building societies may not accept direct debits for some types of accounts.			
Address					
Postcode		Signature	Date		







# INTERESTING TIMBERS

EXTENSIVE RANGE OF ENGLISH GROWN HARDWOOD TIMBERS

Air or kiln dried.

Quarter Sawn Oak usually available.

Turning and carving blanks, full machining service.

Mail Order available - No order too large or small.

Contact us for details or come and see us (please ring first)

We'll ensure a helpful personal service.

DAVID and CATHERINE SIMMONDS, Wells Road, Emborough, Near Bath BA3 4SP

www.interestingtimbers.co.uk

Tel: 01761 241333

Woodturning courses in the beautiful North York Moors National Park

1 - 3 days one to one tuition to meet your needs, 2 by arrangement

With

#### **Philip Greenwood**

On the Register of Professional Turners *Gift vouchers available.* 

For further details contact Philip on 01751 417089 email: philip@woodturningintoart.co.uk www.woodturningintoart.co.uk

# **Woodworking Materials**

#### Large selection of products

Clocks & Accessories (Quartz & Mechanical), Barometers, Thermometers, Cabinet furniture, Screw, Plans, Kits, Polishes, Adhesives, Abrasives etc.
For **free** catalogue please contact,

Chris Milner, Woodworking Supplies
(Dept WT), Beresford Lane, Woolley Moor,
Nr Alfreton, Derbyshire DE55 6FH
Tel/Fax: 01246 590 062
Email: milnerwoodwork@aol.com

#### **LINCOLNSHIRE WOODCRAFT SUPPLIES**

Easy to find - Only 2 mins from A1 - Easy to Park Specialist in High Quality Turning Blanks in Both Homegrown and Exotic Timbers. Over 60 timbers in stock.

OPEN 9.00AM - 4.30PM MON - FRI 9.00AM - 1.00PM SAT

Send six First Class stamps for our NEW MAIL ORDER CATALOGUE

FOR EXPERT ADVICE CONTACT: ROBIN STOREY

THE OLD SAW MILL, BURGHLEY PARK, LONDON ROAD, STAMFORD, LINCS PE9 3JS

TEL: 01780 757825

NEW WEBSITE: WWW.LINCOLNSHIREWOODCRAFT.CO.UK

# www.hopewoodturning.co.uk

# **HOPE** easy-set threading jig



Easy twist and click system built into the main body for easy setting. 5 clicks for 16 tpi cutting depth and 3 for the 20 tpi! Totally unique to the HOPE threading jig.



Create beautiful threaded boxes and forms with ease! Whether making threaded wooden rings or direct threading into your projects you can add another dimension to your turnings with ease.



Jig comes with 20 tpi and 16 tpi threads. Chuck thread is m33 x 3.5.

Stem is 1" as standard (other stem sizes available).

Price includes high quality HSS cutter.

£215.00 inc vat.

Call Simon on 01206 230694

email: hopewoodturning@gmail.com





To advertise contact Russell on **01273 402841** or **russellh@thegmcgroup.com** 



#### Uk Suppliers of Olive Wood Blanks for Turners

At Olive Wood Turning my intention is to supply part seasoned olive wood turning blanks in useable sizes at reasonable prices. We supply to both professional and hobby turners as well as turning supply shops

All blanks have been dressed and wax sealed to help prevent splitting.

Multi-buys available to save on postage costs

If you have a project but aren't sure if Olive is for you, call to chat it over, I'm not a salesman, I'm a wood turner that sells some nice wood.

Courier service to mainland UK, Highlands & Islands, Northern and Southern Ireland and Europe

If you have no internet please phone or write to the address below to receive a product list and order form in the post

#### WWW.OLIVEWOODTURNING.CO.UK

TEL: 07714 204060 EMAIL: JAMES@OLIVEWOODTURNING.CO.UK

EMAIL: JAMES@OLIVEWOODTURNING.CO.UK
Unit 10 Lidun Park, Boundary Road, Lytham, Lancs FY8 5HU

SPINDLE BLANKS
BOWL BLANKS
PEN BLANKS

OLIVE WOOD PLANKS

OLIVE WOOD BURR

**MULTI BUYS** 





#### Allan Calder's Ltd Sandpaper Supplies

Unit 2B Churnet Works, James Brindley Road, Leek, Staffordshire ST13 8YH



We are supplying top quality brands of sanding abrasives for all types of wood turners.

Web: www.sandpapersupplies.co.uk

Email: sandpapersupplies@yahoo.co.uk
Tel: 01538 387738

# TIMBERLINE

Suppliers of fine and rare timbers
Veneers and inlays
Tools and sundries
For the craftsman in wood

Unit 7, Munday Industrial Estate,
58-66 Morley Road, Tonbridge, Kent TN9 1RP
Tel: 01732 355626 Fax: 01732 358214
email exotic.hardwoods@virgin.net
www.exotichardwoods.co.uk

## SURREY TIMBERS Ltd

Your One-Stop Wood Shop

Hardwood Timber Merchant stocking local & Imported Timber







Please come & select from our range:

OAK, YEW, WALNUT, SAPELE, APPLE, MAPLE SYCAMORE & More!

All welcome

WoodturnersJoinersCabinetmakers

Call in and see

our huge range at Loseley Park, Guildford, Surrey, GU3 1HS

07795 663792



01483 457826

www.surreytimbers.co.uk

## SNAINTON

Barkers Lane, Snainton, Nr. Scarborough, North Yorkshire YO13 9BG

WOODWORKING SUPPLIES TEL: (

TEL: 01723 859545

Open Mon-Sat 9.00 - 5.00.
Sun + Bank hols CLOSED.

www.snaintonwoodworking.com



Visit our woodstore to see our large stock of British/Exotic timbers. Join our wood discount club for only £15 per year and receive 25% off all British Turning/Carving blanks when spending £20

XMAS GIFT IDEAS Gift Vouchers. Available mail order -20Q Bandsaw Books, DVD's Buffing System, Chisel Sets, Pen Turning Kits and much more. JWL-1015VS Lathe JWL-1221VS Midi Lathe £449 From £699 Make your own Xmas decorations from our NOVA Comet II Midi Lathe olyester rounds, Exotic & British timbers. From £474.95 NOVA COMET I MIDI Lathe Nova DVR XP Lathe £189 **RECORD** £295 DML36SH-Cam Lathe Inc. stand £380 DML305 Midi Lathe CHARNWOOD £1999 W821 Vari Speed Lathe W813 Lathe 1 only £29 £299 £460 DML320 Cast Midi Lathe 3/4HP £550 CL3 Lathe W813 Lathe and Chuck Package £469.99 £499 W676 Edillo W629 Table Saw £665 CL4 Lathe Maxi 1 Lathe £49 DX1000 45 Litre Extractor £899 CHUCKS AND ACCESSORIES
Charmwood W810 3 Jaw Chuck
Charmwood Viper 2 Chuck
Charmwood Viper 3 Chuck
Pagent P0200 Cerul Chuck Populare £1899 £119.9 £89 BS250 10" Bandsaw £99 BS300E 12" Bandsaw £499 Record RP2000 Scroll Chuck Package From £69.99 RS350S Bandsaw Package £699 Record SC3 Geared Scroll Chuck Package Record SC4 Geared Scroll Chuck Package BS400 16" Bandsaw £9
Large range of machines, tools and accessories. £999 from £79.95 from £94.99 6 Piece Chisel Set 67HS ProEdge Nova G3 Scroll Chuck Supernova 2 Chuck Sorby Patriot Chuck Inc. Steb Chuck 7/8" Full range of jaws for above chucks in stock £159 ProEdge Deluxe ry UK Mainland on these Sorby products SHEPPACH Bts800 Belt/Disc Sander DS405 Scroll Saw £139 T4 £324.95 £299|T7 £439.95 SD1600F Scroll Saw £139 T7 + HTK 706 Handtool Kit £75 More package deals available MT60 Portable Workbench

Buy a wood lathe from us and receive free tuition on Wednesday evenings





Beacon Kilns, High Street Village, St Austell, PL26 7SR www.machinery4wood.co.uk sales@machinery4wood.co.uk

Telephone 01726 828388 charnwood

# MACGREGOR Industrial Supplies STORNOWAY PORTREE



Hamlet Chesnut Products Planet Plus Pen Kits

Record Power Robert Sorby Proxxon Woodturning Blanks



1405 Deborah Herman Rd, Conover, NC 28613 828-322-WOOD (9663) International

#### WE SHIP ALL OVER THE WORLD!!

Exotic Turning Blanks • Pen Blanks Burls • Figured Lumber

Unique Boards

75+ Exotic Species including: African Blackwood, Bocote, Bubinga (Waterfall), Cocobolo, East Indian Rosewood, Ebony, Olivewood, Pink Ivory.

**VISIT OUR WEBSITE:** 

#### www.westpennhardwoods.com

**Use Coupon Code: GMC10 on your next order to receive 10% OFF**Coupon cannot be combined with any other offers and excludes the following species:
Tulipwood, Kingwood, Cocobolo, Amboyna, Waterfall Bubinga and Ebony



#### Mastering Woodturning with Glenn Lucas

Just got a whole lot easier!!

Now you can bring Glenn Lucas into YOUR workshop. Download Glenn's videos to your smartphone or tablet, and watch as you work at the lathe!

Simply go to www.glennlucaswoodturning.com to download the videos and/or buy the DVDs



#### MAIL ORDER

NARROW BANDSAW BLADES MANUFACTURED TO ANY LENGTH

PHONE **NOW** FOR IMMEDIATE QUOTATION OR WRITE TO US FOR A PRICE LIST

Spurside Saw Works, The Downs, Ross-on-Wye, Herefordshire HR9 7TJ Tel: 01989 769371 Fax: 01989 567360

www.trucutbandsaws.co.uk

#### **BWS**

#### **Barmossie** Woodturning Supplies

Moss of Barmuckity, Elgin, IV30 8QW

> 01343 842747 07966 298026

Open every Saturday 8am - 5pm

#### **BWS**

#### **Barmossie Woodturning Supplies**

Unit 25, Twitch Hill, Horbury, Wakefield, WF4 6NA

> 01924 271868 07966 298026

Open every Saturday 8am - 5pm

# Sons Ltd 01798 861611 f: 01798 861633 Selham, Petworth, GU28 OPJ

- Hardwoods
- **Wood finishes**
- **Australian Burrs**
- **Exotic Timbers**
- **Woodturning Blanks**
- Woodturning Courses (see website for dates)
- Woodworking Tools
- Fencing, Gate & Decking Products
- Bespoke Garden Furniture

Timber, Tools & Machine for D.I.Y • Carving Woodturning • Furniture

shop@wlwest.co.uk Off A272 Midhurst to Petworth road opp The Halfway Bridge

#### THE WOOD SHED

11 Lowtown Road Temple Patrick Co. Antrim BT39 0HD 02894 433833

www.wood-shed.com

#### The Wood Shed

native and exotic woods woodturning tools accessories • finishes

woodturning courses for all abilities

#### Timberman

Gwili Garage, Bronwdd, Carmarthen SA33 6BE Email: mike.jones@freeuk.com Tel: 01267 232621 Fax: 01267 222616

Open: Mon-Fri 9am - 5pm Saturday 9am - 12 noon







Hardwoods, Turning Blanks, Woodworking Machinery & Power Tools

ABCCVDFHMPSTW

Robert Sorby, Crown Tools, Liberon, Fiddes Finishes, Jet Lathes, SIP

# Bill Ooms — 'Black and Silver Egg'

This fantastic piece, produced using an ornamental lathe, was made by Arizona-based **Bill Ooms** for the AAW's recent POP exhibition. He tells us more about it here



he theme for this year's AAW POP

- Professional Outreach Program

- is 'Creativity in Construction: A

Collaboration of Materials' meaning the use
of more than one material. My submission
was a combination of sterling silver and wood.

I love to look at photos of the fabulous Fabergé eggs, which inspire me to try new techniques and push the limits of what can be achieved with an ornamental lathe. The egg is basically a wooden box with a threaded lid. It opens to reveal a surprise of colour and pattern. I start with the main body of the egg in African blackwood (*Dalbergia melanoxylon*), then fit a mating piece of maple (*Acer saccharum*) inside. Next, I hollow the maple and fit a mating piece of

brown ivory (*Berchemia discolor*) inside. After hollowing, the result is thin layers of the contrasting woods, which are cut through with an ornamental lathe to reveal a kaleidoscope pattern of colours. The brown ivory wood is hard to come by here in the US and the piece I used came from the Dale Nish wood collection.

The exterior of the egg is decorated with sterling silver. I use the new Argentium alloy of silver in all my work because it is highly tarnish resistant. The ornate silver bands around the circumference are held in place by a retaining ring of matching blackwood. The twisted silver wire is inlaid into a groove cut into the wood. Finally, I added an old Russian faceted CZ – cubic zirconia – stone

on the top and a fresh water pearl on the bottom. The base is handmade sterling silver filigree – I do all my own silver work.

The thing I enjoy the most about doing one-of-a-kind artwork is the creation of a unique design. I envision what it is that I want to make and then figure out how to make it. Often, I need to make several prototypes to solve problems such as holding the work, cutting the pattern, making custom cutters, etc. The rose engine ornamental lathe is just one of the many 'tools' that I use to create my artwork. Recently, another woodturner referred to me as a 'rose engineer' and I think that describes me very well.

**Email:** bill@billooms.com **Website:** www.billooms.com



# So impressive is the performance of this lathe that we use it on courses in the Axminster Skill Centre

This bench top model with an optional leg stand is made of heavy cast iron to minimise vibration. Its many excellent features include 406mm swing over the bed and 710mm between centres, 1.5kW motor with electronic speed control and two speed ranges, and a digital read-out in rpm with forward and reverse facility. A swivelling headstock allows the turning of larger diameter bowls and platters off the end of the bed and increases the capacity considerably. If the lathe is fitted to the cast iron leg stand, it can be attached in a lower position offering an impressive 875mm swing over the bed. This lathe comes with a 150mm (6") faceplate, knockout bar, an Axminster manufactured four prong drive centre and revolving tailstock centre. A 460mm bed extension kit is available as an optional extra.

Why not come on an Axminster Skill Centre Woodturning Course? Visit axminsterskillcentre.co.uk or call 0800 9751905



Evolution Chuck T38 M33 £179.95 502668 Type G Gripper Jaws £32.95 410168

To find out more visit **axminster.co.uk** or call **0800 371822** 

Prices include VAT, delivery and are valid until 31st December 2015



# Robert Sorb Patriot Chuck

Proudly Made in Sheffield, England

Special Offer FREE 7/8" Steb Chuck Worth £218.40 inc VAT NOW £164.40 inc VAT



FREE 7/8" Steb Chuck



The Steb Chuck provides a quick and simple solution when switching trom bowl to spindle turning

# There's only one lathe chuck that ticks all the boxes

- $\overline{\hspace{0.1in}}$  Compliments the majority of lathes  $\overline{\hspace{0.1in}}$  Includes 50mm jaws and screw
- Smooth jaw movement
- chuck as standard
- Huge range of jaws and accessories Peace of mind with the Robert Sorby lifetime guarantee

Offer only available in the UK. From participating stores while stocks last



Robert Sorby

